MYSTICAL EXPERIENCE AND MENTAL HEALTH: THREE PERSPECTIVES

By

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Abstract of Dissertation Presented to the Graduate School of the University of Florida in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy

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Historically, writers from a number of theoretical traditions have argued that mystical experience is a possibly regressive experience that is predominantly the province of individuals of questionable mental health. The present study was an empirical examination of the relationship between the report of mystical experience and mental health using several measures of mental health.

Specifically, the report of mystical experience was measured using both Hood's Mystical Experience Scale and a question that has been repeatedly used in surveys with a variety of populations. The definition of mental health used was based in a tripartite model developed by Strupp and Hadley which recommends that mental health be simultaneously assessed from social, structural and individual perspectives. Specifically, four measures of mental health were used: level

of social avoidance and distress, social responsibility, ego strength and self-acceptance.

Data were collected from 106 undergraduates. Correlations between the four measures of mental health and the two measures of mystical experience were calculated. The four measures of mental health were also entered into a regression analysis and discriminant function analysis to predict the report of mystical experience.

Results suggest a picture of the mystical experient that stands in contrast to images portrayed in the traditional literature of psychology and psychiatry. In summary, the mystical experient tends to be less socially anxious and avoidant, neither more nor less socially responsible, slightly more accepting of their self, and tends to have higher ego strength than the nonexperient. In addition, the relationship between the two measures of mystical experience was examined and implications for refining definitions of mystical experience were explored.

CHAPTER 1
INTRODUCTION

Historically, mystical experience has been dealt with by psychology in one of two ways; the experience has been largely ignored, or it has been pathologized. Modern psychology, however, offers a set of empirical research methods that can validate the mystical experience as a legitimate subject of inquiry. Lukoff and Lu (1988) have noted that recent researchers have already begun to explore some of the psychological correlates of mystical experience in a more unbiased and scientific manner. This paper will include a review of the literature and research that was designed to explore the relationship between mystical experience, psychopathology, personality characteristics and style, personality structure and subjective well-being.

One of the greatest difficulties in the scientific study of mystical experiences is defining the experience, and further, operationalizing the definition. Fortunately, Stace (1960) has generated an excellent conceptual framework in his clear description of the universal phenomenological qualities of the mystical experience. As will be seen, there is a core phenomenology to the mystical experience, whether that experience is labeled as mystical, religious, peak or transcendent.

Stace's (1960) phenomenological descriptions have allowed for the development of operational categories and definitions that have been used by a number of researchers. Hood (1975) has constructed a Mysticism Scale based on Stace's categories, which measures the report of mystical experience. Hood's scale has provided researchers with the shared instrumentation necessary for scientific inquiry and has been used in a number of studies (Hood, 1977; Hood, Hall, Watson, & Biderman, 1979; Spanos & Moretti, 1988).

Another issue arises in attempting to define mental health. As Strupp and Hadley (1977) have noted, there is a lack of "consensus on what constitutes mental health" (p. 187), and they have developed a tripartite model of mental health, which approaches assessment from the perspectives of three interested parties: society, the mental health professional, and the individual. The current study has provided the basis for a more complex understanding of the relationship between mystical experience and mental health through the use of this multifaceted definition of mental health.

The research on the relationship between mystical experience and mental health has been limited and at times equivocal. The literature that does exist has focused primarily on societal definitions of mental health, which include traditional measures of psychopathology as well as personality characteristics, interpersonal style and social integration. Though writers have often hypothesized that

clinical psychopathology is positively related to mystical experience, research has indicated there is no or a very low correlation between the two (Hood, Hall, Watson, & Biderman, 1979; Leach, 1962; Spanos & Moretti, 1988). The relationship between a few nonpathological personality characteristics and mystical experience has also been investigated by some researchers (Hood et al., 1979; Spanos & Moretti, 1988).

Beyond isolated personality characteristics, theorists have written at length on the possible relationship between interpersonal style and mystical experience. The idea that the mystical experient tends toward a more detached, escapist, or socially uninvolved lifestyle is reflected in the conclusions of the Committee on Psychiatry and Religion (1976). The Committee speculated that the mystic is motivated to withdraw from interpersonal relations and seek the mystical experience due to higher than average levels of social or interpersonal anxiety. Theorists from a number of theoretical traditions (Ellis, 1989; Freud, 1961, 1964; Schneider, 1987) have echoed these thoughts and have often assumed that these higher levels of anxiety, coupled with a more passive attentional style (Deikman, 1982), lead the mystic to manifest a reduced involvement with, or generally poor integration into, larger society.

Since there has been some difficulty in isolating stable clinical pathological correlates of mystical experience (Hood, Hall, Watson, & Biderman, 1979), a review of the literature suggested that assessments of socially adaptive

behavior would provide a more useful indicator of mental health from the societal perspective. Strupp and Hadley (1977) have noted that social integration, adaptation and adherence to societal norms are aspects of the societal view of mental health and could be assessed through an examination of the construct of social responsibility. Consequently, the current study used a measure of social responsibility developed by Gough, McClosky and Meehl (1952). In addition, given that theorists have repeatedly voiced the hypothesis that mystical experients are motivated to withdraw due to high levels of interpersonal anxiety, the study also used an assessment of social avoidance and anxiety developed by Watson and Friend (1969). Thus, the current study used two measures of mental health from the societal perspective.

From the perspective of the mental health professional, personality structure or depth psychology is of great importance in determining mental health (Strupp & Hadley, 1977). From a depth perspective, the similarities between mystical experience and various forms of structural pathology has suggested a possible relationship between the two. Both mystics and those with structural pathology, for example, report a blurring or loss of boundaries between self and other. Traditional theorists have assumed that, given the characteristics of the mystical experience, the experient by definition manifests poor ego structure and poor reality adaptation (Committee, 1976; Epstein, 1989; Freud, 1961, 1964). Given the phenomenological similarities between

mystical experience and structural pathology, traditional assumptions about the mystical experient's poor reality perception and mastery, and lack of research in the area, this second perspective provided an exceptionally fertile area for research.

Strupp and Hadley (1977) have indicated that an appropriate assessment of personality structure would address ego structures and functioning (Blanck & Blanck, 1974; Kernberg, 1976), the assessment of which may be made through an examination of the individual's ego strength. In fact, assessment of ego strength provides the clinician with one of the broadest measures of personality structure in that the concept encompasses a wide variety of ego structures and functions (Lake, 1985), including relationship to reality, self-regulation and personal adequacy. Therefore, the current study used a measure of ego strength (Zander & Thomas, 1960) to provide a broad assessment of the personality structure of the mystical experient.

Research on the relationship between subjective well-being and mystical experience has also been very limited. Although mystical experients often report intensely positive mood states during the experience (Stace, 1960), little research has been done to assess the ongoing degree of subjective well-being reported by those who have mystical experiences. The few studies that do exist seem to have been contradictory (Greeley, 1975; Spanos & Moretti, 1988). Strupp and Hadley (1977) have noted that subjective

perceptions of self-esteem and self-acceptance provide a good yardstick of the individual's perception of his or her mental health, thus the current study used a measure of self-acceptance (Berger, 1952) as an assessment of mental health from the individual's own perspective.

The literature on mystical experience, personality style, personality structure and subjective well-being has suggested that there may be relationships between mystical experience and the three definitions of mental health. However, most of the literature has been theoretical and some of the contradictory conclusions regarding the relationship between mystical experience and mental health may have arisen from the use of overly narrow or differing definitions of mental health. The purpose of the current study was to examine the relationship between mystical experience and mental health using a tripartite definition of mental health, which included assessments of social behavior (social responsibility, social avoidance and distress), personality structure (ego strength), and subjective well-being (self-acceptance).

CHAPTER 2
LITERATURE REVIEW

Mystical Experience

The purpose of this part of the chapter is to examine definitions, characteristics and interpretations of the mystical experience, as well as its incidence in the general population.

Definitions and Characteristics

Mystical experience has been viewed as the great universal core of ultimate personal experiences (Stace, 1960), and Leuba (1929) broadly defined mystical experience as union of the self with something larger than the self, with that something being variously labeled God, the Absolute or the Cosmos. Wulff (1991) has noted that mystical refers to that which is "related to a spiritual reality not ordinarily present to the senses or comprehended by the intellect" (p. G-18), and Tisdale (1980) has written that the mystical experience is "an intensely personal one in which one apprehends himself [sic] to be in touch with Ultimate Reality" (p. 179).

Throughout history those who have had mystical experiences have attempted to describe that experience as best they could. However, one of the defining characteristics of mystical experience is its ineffability (James, 1961;

Stace, 1960), and as Lukoff (1985) has noted, there are obvious difficulties in "describing operationally an experience which defies description by words" (p. 158). Some of the difficulty in describing the experience is reflected in the varied definitions used by researchers.

Lukoff and Lu (1988) have reviewed the literature on research on the mystical experience, and stated that one of the difficulties in researching the mystical state is the "wide range of conceptual variability among researchers" (p. 163). The authors have noted how the definition of mystical experience often varies along the dimension of intensity, with some writers using "upheaval of the total personality" (Neumann, 1964, p. 381) as a criterion for the experience, while others use a more broad definition that encompasses everyday forms of mysticism (Scharfstein, 1973).

Another basic conceptual issue is the split among writers on the pluralistic or unitary nature of the mystical experience. Donovan (1979) has clearly characterized this historical split and has noted that one class of writers, the essentialists, argue that the mystical experience is a universal phenomenon "appearing under different descriptions in all religions and mystical paths" (p. 5). The other class of writers, the pluralists, argue there are "distinct categories of mystical experience, superficially similar, but with quite different implications for the truth" (p. 6).

Donovan's (1979) arguments fall in the pluralistic camp, as he notes that the phenomenological characteristics of the

mystical experience vary by culture and cannot be separated from the culture, language or spiritual discipline that led up to the experience. Stace (1960) typifies the unitary or essentialist position in his argument that a universal core phenomenology of the mystical experience may be identified, regardless of time or culture. More recently, Loy (1988) has examined a variety of mystical traditions and has cogently argued for the universal nature of the mystical experience. The debate between the essentialists and the pluralists may ultimately be unresolvable, and for research to proceed a stand must be taken on the issue. The arguments presented in this paper are consistent with the universalist tradition.

Also consistent with the universalist approach, there is a distinction made in this paper between mystical experience, qua experience, and whatever psychospiritual training or technique that may have been a precursor to that experience. Indeed, there exists a significant body of literature which has addressed the numerous methods designed to induce the proper conditions in which a mystical experience may be most likely to occur (Lukoff & Lu, 1988). Hay (1985), for example, has reviewed the variety of instruments that have been considered as possible avenues for creating the prerequisite conditions, including pharmacological, physical techniques such as breathing and/or rhythmic movement, as well as meditation and prayer.

However, as various writers have noted (Stace, 1960; Hay, 1985; Hood, 1975), mystical experiences share certain

phenomenological characteristics regardless of whether or not there are identifiable precursors to that experience. Stace (1960) was sensitive to this issue and noted that although some mystical experiences are more spontaneous and some are more likely to be preceded by a training discipline designed to lead to the mystical experience, both types of experience share identifiable core phenomenological characteristics (p. 60). Consequently, the focus of this paper is on mystical experience in and of itself rather than on the various methods that may be linked to the induction of that experience.

Hay (1979) echoes the essentialist theme and has noted that even though the descriptions have extraordinary features, there are uniformities within the mystical experience that lend themselves to scientific examination. Researchers have used a variety of methodologies and classification systems to gain some understanding of the mystical experience (Hardy, 1979; Hay, 1979; Hood, 1975). Though some researchers have developed their own definitions, the majority have consistently based their definitions on generally-accepted literature on the mystical experience.

Researchers are fortunate to have had Stace's (1960) excellent description of the universal characteristics of the mystical experience. Stace has provided a clear conceptual framework for describing the phenomenology of the mystical experience, a framework that lends itself well to the development of operational definitions. For the purposes of

research, then, one of the best ways to achieve a working definition of the mystical experience is to define it in terms of its more universal characteristics.

Stace's (1960) conceptualizations have been based on two assumptions, clarified by Hood (1975). The first is that mystical experience is universal and has clearly identifiable phenomenological features that transcend the differing ideologies of the experients. The second assumption is that all of the phenomenological categories of the mystical experience are not "definitionally essential to any particular individual mystical experience" (p. 30) because there are family resemblances among those experiences that fulfill only some of the core categories.

The universal elements of the mystical experience identified by Stace (1960) and elaborated by Pahnke (1966) are as follows:

1. The experience of unity or oneness, perceived either outwardly, in the external world, or inwardly
2. A feeling of transcendence of time and space
3. A deeply felt positive mood
4. A sense of sacredness
5. A conviction of objectivity and reality
6. A quality of paradoxicality
7 Alleged ineffability

As Lukoff and Lu (1988) have noted, most researchers in the field have linked their definitions of the mystical experience to these universal characteristics distilled by

Stace. Many writers and researchers have since come to the conclusion that although positive mood may often be present, it is not definitionally essential to the mystical experience (Hood, 1975; Mathes, Zevon, Roter, & Joerger, 1982; Spanos & Moretti, 1988).

Maslow (1964) noted that mystical experiences can be relabeled as peak or transcendent experiences and that such experiences are "perfectly natural . . . of the kind that can easily be examined today" (p. 20). Some of the characteristics common to peak experiences include the following:

1. Experience of the universe as a unified whole
2. A feeling of ego-transcendence
3. A sense of awe/reverence
4. A sense of being in touch with ultimate reality
5. Transcendence of dichotomies

The clear correspondences between Maslow's work and the work of Stace (1960) support Maslow's assertion that peak experiences may be understood as essentially mystical in nature.

In their development of a measure of the tendency to report peak experiences, Mathes, Zevon, Roter, and Joerger (1982) have also concluded that the peak experience is primarily a mystical event. In addition, they have noted that Maslow's "conception of peak experiences is that they are experiences in which the individual transcends ordinary reality and perceives Being or ultimate reality" (p. 93).

However, the authors remind readers that Maslow's conception of the peak experience is that it is an experience of Being and that positive affect is incidental to the experience. In many ways, Maslow's (1964, 1970) work legitimized the study of the mystical experience through its re-definition as peak experience and through the introduction of peak experiences into his psychology of the healthy person.

In summary, some of the difficulties first apparent in researching the mystical experience have yielded to the work of a number of theorists and researchers in the fields of psychology and religion. The issues of alleged ineffability and the conceptual variability among researchers were originally major obstacles to a scientific study of the mystical experience. However, descriptions of the mystical experience offered by experients have demonstrated some striking uniformities which makes the experience amenable to scientific exploration (Hay, 1979). The phenomenological features common to the mystical experience have been identified by a number of theorists (Maslow, 1964; Pahnke, 1966; Stace, 1960) and researchers have already begun to develop a common language with which to communicate about the experience (Lukoff & Lu, 1988).

A Common Definition of Mystical Experience

A study of mystical experience requires not only agreement upon the essential features of that experience, but also upon coding of criteria. Before a common operational

definition can be settled upon, however, the issue of differing interpretations of the mystical experience must be more fully addressed.

Hay and Morisy (1978) have argued that the mystical experience is a universal part of human experience and that "society gives meaning to experience, or awakens awareness to particular aspects of experience" (p. 265) and that the socially available explanatory system for this kind of experience is often religious. Hay (1979) has noted that the religious interpretation of mystical experience may be rejected by the individual but only when there is an acceptable alternative. As noted previously, Maslow (1964) has offered an alternative psychological explanation that does not invoke a deity: an explanation that relabels the mystical experience as a peak experience.

The literature supports the assumption that mystical experiences manifest a core phenomenology, but that various interpretations may be overlaid on that experience (Hood, 1975; Loy, 1988; Lukoff & Lu, 1988; Stace, 1960). Religiously-oriented experients may label it using religious terminology, while psychologists may use psychological terms and refer to the phenomenon as a peak or transcendent experience. Consequently, in this paper the term mystical experience will be used to refer to a body of experiences which share a core phenomenology, regardless of specific interpretations given that experience (religious, peak, or transcendent). This definition is consistent with the

universalist or essentialist stance delineated earlier in the literature review.

Given that Stace's (1960) conceptualization has been the most widely used in research on the mystical experience, a definition based on his work was used in this study. As noted earlier, one of the greatest difficulties in researching the mystical experience has been in defining the experience, and Cook and Campbell (1979) have stated that one of the threats to construct validity is "inadequate preoperational explication of constructs" (p. 64). The phenomenological characteristics of the mystical experience described by Stace (1960) represent, for writers in the field, the best preoperational explication of the construct available. In addition, the measurement of several different phenomenological characteristics purportedly related to the mystical experience represents an attempt to establish a nomological network among difficult-to-define constructs and a variety of observable phenomena (Walsh & Betz, 1990). However, there should be a clear understanding that there are some ongoing difficulties in defining the essential features of the construct of mystical experience, and consequently, in the development of operations to measure that construct.

Hood (1973) has developed operational categories for the assessment of mystical experiences based on Stace's (1960) conceptualizations. These criteria have become the basis for Hood's (1975) Mysticism Scale, and in the current study mystical experience was operationally defined by a continuum

of scores on this scale. Hood's scale is also the instrument in the field for which there exists the strongest evidence of construct validity.

Thus, based on Hood's (1975) Mysticism Scale, a mystical experience is an experience that is characterized by a combination of the qualities noted earlier: a sense of unity, a feeling of transcendence of time and space, a loss of sense of self, a felt sense of sacredness, and a sense of ineffability. Again, not all of the qualities need to be present simultaneously for the experience to be assessed as mystical. This inability to precisely characterize the number of necessary and sufficient features of the mystical experience represents a difficulty in this field, and further research is necessary to determine which features account for the most variance in the report of mystical experience.

Incidence

Given the paucity of empirical research on the mystical experience, one might assume that the experience must be rare or that psychologists believe that it has little relevance for the average person. Lukoff (1985), however, concluded that mystical experiences are not rare events, and that mental health professionals as well as others need to be able to recognize them. In fact, surveys have consistently revealed that approximately one-third of the population report intense transcendent or mystical experiences (Lukoff & Lu, 1988).

Greeley (1974) reported on a representative survey (1,468 adults) of the United States population where the question was asked: "Have you ever felt as though you were very close to a powerful, spiritual force that seemed to lift you out of yourself?" Greeley found that 35% of the respondents answered in the affirmative and half reported more than one instance of such an experience. Greeley (1987) readministered the same survey question to another representative sample of the United States population and found that the positive answers had increased to 43%. In a national survey of a representative sample of person's in Great Britain, Hay and Morisy (1978) asked Greeley's (1974) question and received a 30.4% affirmative response, revealing only a five percent difference between the British and American samples.

Thomas and Cooper (1980) have argued that the experiences gleaned by Greeley's question may vary considerably from the classic mystical experience. Hufford (1985, cited in Wulff, 1991, p. 504) asked Greeley's (1974) question of 30 randomly chosen nonpsychiatric hospital patients and asked for detailed descriptions of affirmative responses, which he then categorized using criteria which reflect Stace's (1960) and Hood's (1975) conceptualizations. Of the 14 affirmative responses, 8 proved to be false positives, with a resultant reduction of positive responses from 47 to 20 percent. Though these results suggest Greeley's survey numbers may have been inflated, the reduced

numbers still indicate there may be a significant body of mystical experients in the general population. Hufford's study also reinforces the importance of using a definition of mystical experience based on phenomenological categories rather than on a single question that may be more loosely interpreted by respondents.

Mystical Experience and Mental Health

The purpose of this section is to review the theoretical and empirical literature that has addressed the relationship between mystical experience and mental health. Areas to be addressed include the relationship between mystical experience and the following: psychopathology, personality characteristics and interpersonal style, personality structure and subjective well-being.

Mental Health

Any study of mental health requires an explicit definition of that often nebulous construct. Strupp and Hadley (1977) have noted that "only by considering multiple perspectives will it be possible to derive a truly comprehensive definition of mental health" (p. 187). They recommend simultaneously taking into account the "vantage points" of the three major parties interested in defining mental health: society, the mental health professional, and the individual.

Strupp and Hadley (1977) have noted that "each of these parties defines mental health in terms of certain unique

purposes or aims it seeks to fulfill" (p. 188), and that these perspectives may be seen to represent: social behavior (e.g. measures of interpersonal behavior and societal integration as well as traditional measures of clinical pathology and nonclinical personality characteristics), personality structure (e.g. measures of depth psychology or ego functions), and a subjective sense of well-being (e.g. measures of self-esteem or self-acceptance). This section will explore the relevant writings from each of these three perspectives, but as Strupp and Hadley have noted, there are often areas of overlap among the three definitions. Consequently, there may be some overlap in the presentation of literature from the three perspectives.

Societal Definitions of Mental Health

In this section of the paper literature will be reviewed which has addressed the relationship between mystical experience and societal definitions of mental health. Given that deviance from typical conduct forms a definitional component of many pathologies, more traditional clinical syndromes will be reviewed largely from this definition of mental health. However, it should be understood that traditional measures of psychopathology have some overlap with all three perspectives.

Strupp and Hadley (1977) have stated that mental health from the societal perspective is often defined "in terms of behavioral stability, predictability, and conformity to the

social code" (p. 188). Therefore, measures of personality characteristics and social-interpersonal style are included here and are perhaps most representative of this definition of mental health.

Clinical psychopathology. Nelson (1989) has noted that in the history of western psychology there has been a tendency to implicitly associate mystical or transcendent states of consciousness with pathological states. This implicit connection seems particularly true of the analytic writers (Freud, 1961; Committee, 1976), but has been true of theorists from other schools as well, including the cognitive-behavioral (Ellis, 1989) and existential schools (Schneider, 1987). Even James (1961), who was generally sympathetic to the positive value of mystical states, warned that those who do experience such states not uncommonly demonstrate signs of psychopathology.

The literature supporting these traditional assumptions has been largely theoretical, and in fact, the empirical work that has been done reveals at best only moderate correlations between mystical experience and various assessment of clinical psychopathology. Taft (1969), for example, found only a slight positive correlation (r = .15) between the report of peak experiences and a measure of neuroticism (Eysenck, 1958). In an earlier study, Leach (1962) had found no correlation between the report of peak experiences and the Neuroticism (Nf) scale (Comfrey, 1957) on the MMPI.

In a direct study of mystical experience, Hood (1975) found a correlation between that experience and the Hypochondriasis (r = .37) and Hysteria (r = .38) scales of the MMPI. There were no other significant correlations, and Hood argued that a concern with bodily processes and intense experiential states was characteristic of the mystical experience itself. In a study of female undergraduates, Spanos and Moretti (1988) found that a measure of mystical experience failed to correlate significantly with measures of depressive affect or psychosomatic symptoms, traditional measures of clinical psychopathology. The researchers conclude that "mystical experiences occur as frequently among those who are psychologically stable as among those who tend to be distraught and troubled" (p. 113). In an unusual study, Vaughan and Maliszewski (1982) found that for 43 mothers who reported experiencing a mystical state during childbirth, there was no correlation between the experience and psychological health. Hood, Hall, Watson, and Biderman (1979) summarized the research on mystical experience at that time, concluding that the literature indicated a general lack of correlation between traditional clinical pathological characteristics and mystical experience, a conclusion supported by others (Koltko, 1989).

Personality characteristics and style. Beyond the examination of traditional measures of psychopathology, there is a body of literature that addresses the personality characteristics and personality style of those who report

mystical experiences. These characteristics form a part of the societal definition of mental health, and they often address the experient's interpersonal behavior and/or adherence to social norms.

Nelson (1989) has argued that the tendency to enter into mystical states may be conceptualized as a cluster of biologically-determined personality characteristics that facilitate the onset of such experiences. Empirical research has already addressed some isolated personality characteristics of the mystical experient. One personality characteristic of interest to researchers has been openness to experience or ego permissiveness, that is, the ego's ability to use conscious and unconscious potentialities (Taft, 1969). Hood (1975) found a significant correlation (r = -.75) between scores on his mystical experience scale and scores on Taft's ego permissiveness scale. In contrast, Vaughan and Maliszewski (1982) found no correlation between the mystical experience and openness to new experiences, value orientation or social desirability.

The personality characteristic of absorption has also been assessed in mystical experients. Tellegen and Atkinson (1974) believe absorption represents "total attention involving a full commitment of available perceptual, motoric, and imaginative and ideational resources to a unified representation of the imaginal object" (p. 274). Noting the similarities between descriptions of absorption and the mystical experience, Spanos and Moretti (1988) assessed the

relationship between absorption, four measures of hypnotizability and the tendency to report mystical experience. The researchers used a multiple regression procedure and found that absorption was the single best predictor of mystical experience, accounting for 29% of the variance in the mysticism scores. The authors found that four measures of hypnotizability correlated positively (r = .36 to .39) with the report of mystical experience, but only the measure of hypnotic depth added significantly (another 5%) to the prediction equation.

Hood et al. (1979) used the Jackson Personality Inventory (Jackson, 1976) in an attempt to isolate stable personality correlates of mystical experience. The authors concluded that individuals who report mystical experiences tend to have higher levels of tolerance, broader interests and are more creative and socially adept than non-experients. In addition, Hood (1977) found a positive correlation between reports of mystical experience and a measure of self-actualization.

The previous studies have allowed for some conclusions regarding isolated personality characteristics of mystical experients. However, the societal definition of mental health is perhaps best exemplified by indicators of the individual's social and interpersonal behavior (Strupp & Hadley, 1977). There have been a number of historical assumptions about the social behavior and interpersonal style

of the mystical experient, but virtually no empirical research has been done in this area.

Freud (1961), for example, believed that mystical experience was a way of avoiding the demands of mature adult development in the areas of work and love. Others elaborated on this idea (Committee on Psychiatry and Religion, 1976; Prince & Savage, 1972), concluding that mystical experience is a regression to an earlier ego state that enables the experient to withdraw from the world and to escape higher than average levels of interpersonal anxiety. Schneider (1987, 1989), an existential theorist, has also argued that focus on the mystical state of consciousness can be socially debilitating or escapist. At best, Schneider viewed mystical experients as out of step with the realities and demands of their social environment, a view supported by Ellis (1989), who has addressed the escapist attitude inherent in the pursuit of mystical experience.

In summary then, empirical research has suggested a weak relationship between the report of mystical experience and traditional measures of clinical psychopathology. In addition, a review of the literature on societal definitions of mental health indicates that if pathological correlates of the mystical experience do exist, they might be more likely found in some domain other than in traditional measures of pathology. Further, research that has addressed circumscribed personality characteristics of mystical

experients has been informative, but has rarely explored the experient's social and interpersonal behavior.

Given that much of the theoretical literature has addressed the interpersonal style and social integration of the mystical experient, an examination of the mystical experient's interpersonal behavior would offer one of the most useful tests of traditional assumptions about the social mental health of the mystical experient. In that the area of functioning most often addressed by traditional theorists is social-interpersonal in nature, two measures were used from this perspective in order to address a wider range of assumptions. In addition, the social perspective on mental health is somewhat loosely defined. Consequently, the current study used two measures of social-interpersonal behavior to assess the mental health of the mystical experient from the societal perspective.

Structural Definitions of Mental Health

The phenomenological similarities between mystical experience and various forms of structural pathology raises a question as to the equivalency of the experiences. This section will focus on the relationship between mystical experience and a definition of mental health from the perspective of the mental health professional, that is, from a structural or depth psychology perspective. This area of the review will include literature on mystical experience and structural pathology, reality testing and ego strength. With

very few exceptions, virtually all of the literature in this area has been theoretical.

Personality structure. The concept of personality structure may be best understood in the context of the developmental spectrum model of psychopathology (Mahler, Pine, & Bergman, 1975; Masterson, 1985; Rinsley, 1981), a model in which "qualitatively different levels of personality organization and ego functioning are rooted in failures, arrests or regressions in different stages of intrapsychic development, above all the crucial line of object relations" (Engler, 1984, p.27). Thus, level of personality structure is often inferred through analysis of the ego functions (Blanck & Blanck, 1974; Goldstein, 1985; Kernberg, 1976) and structural pathology is often described in the language of ego psychology and object relations (Mahler et al. 1975; Masterson, 1985).

Object relations (Cashdan, 1989) essentially refers to the manner in which a child's sense of self evolves out of ongoing interactions with his or her significant others (objects) and through the internalization of those interactions as representations of the self and objects. Arrests or fixations at earlier stages of ego development can result in ongoing poor differentiation between self and others and in a lack of a cohesive sense of self (Blanck & Blanck, 1974; Kernberg, 1976; Masterson, 1985). This vulnerability to fusions and confusions of self and object representations might also be referred to as having poor ego

boundaries (Bell, Billington, & Becker, 1985). In contrast, persons functioning at higher levels of ego development have a clearer differentiation between self and other and have a more integrated sense of self.

Because these developmental arrests largely affect the ego functions, structural pathology may also be understood as self or ego pathology, which may be seen to differ from personality style and traditional psychiatric symptoms (Engler, 1984). At this point it would be worthwhile to examine some of the pathological characteristics common to the various levels of personality organization: psychotic, narcissistic, borderline, neurotic and healthy.

Psychosis, borderline and narcissistic pathology. The similarity between aspects of the mystical experience and certain symptoms of psychosis has been discussed in the literature (Buckley, 1981; James, 1961; Lukoff, 1985). The bias in historical conceptions of mystical experience has often resulted in the use of some of the phenomenological characteristics of the mystical experience as definitional criteria for psychosis (James, 1961). Some writers have argued that confusion arises from the possibility that mystical experience and psychosis may at times manifest simultaneously, even though the two experiences are independent phenomena (Lukoff, 1985; Scharfstein, 1973).

One of the primary characteristics of the mystical experience is the loss of a sense of self, in particular, the feeling that the self is united with or absorbed into some

other or some larger whole (Maslow, 1964; Pahnke, 1966; Stace, 1960) and for some theorists this absorption is indicative of a psychotic level of organization. The borderline level of organization manifests related forms of structural pathology, including identity diffusion (Kernberg, 1976) and incomplete self-object differentiation (Mahler et al. 1975; Masterson, 1985), which tend to result in fluid boundaries between the self and the world.

Further comparisons may be made between mystical experience and certain characteristics of narcissistic pathology. Epstein (1986) has reviewed the traditional analytic perspectives on mystical phenomena, noting that mysticism in general has been seen as a narcissistic attempt to merge ego and ego ideal, or to fuse the self with the primary object (the mother) even when that object is consciously believed to be God or some other absolute. Engler (1984) has speculated that persons with borderline and narcissistic pathologies are likely attracted to meditative and mystical traditions which reinforce their subjective feelings of emptiness, poor self-cohesion and poor self-object differentiation. Given these views, one hypothesis that derives from the traditional psychological paradigm is that those who have poor ego development, or a lower level of personality organization, would be more likely to experience the loss of a sense of self so characteristic of mystical states.

Reality testing. Reality testing is another ego function that provides clinicians with a good indicator of the level of psychostructural organization. Reality testing has been seen historically to have a primary role in the development of the ego and in the ego's adaptation to its environment (Freud, 1949). Bell, Billington, and Becker (1985) have noted that the reality testing ego function has been linked theoretically to the development of ego boundaries and "the ability to distinguish internal from external and self from not self" (p. 506), functions which might theoretically be considered impaired in a mystical experient. Bell et al. have echoed the writings of others (Kernberg, 1976; Masterson, 1985) in noting that reality testing generally distinguishes between greater and lesser forms of structural pathology. The greater the structural pathology, the more reality testing is impaired, and consequently the greater the difficulty in handling the everyday commonsense tasks of living and functioning and in maintaining a shared intersubjective reality with others (Lukoff, 1985).

Ego strength. Reality testing, object relations development and ego boundaries are characteristics of the ego that form a part of an even broader structural concept, ego strength. The concept of ego strength was originally introduced in the psychoanalytic literature, and for Freud (1949) the concept was related not only to the ego's management of drives and prohibitions of the id and superego,

the internal world, but also to the ego's maintenance of its adaptability to the external world. Lake (1985) has provided an excellent overview of the historical conceptions of ego strength in psychotherapy. Demonstrating many areas of overlap among equivalent concepts described by a variety of clinicians and theorists, Lake has argued that the concept of ego strength is most often related to a strong sense of competence, and the ability to adapt to reality and master it.

One of the earliest attempts to quantify ego strength was made by Barron (1953), who originally developed a 68-item MMPI scale to predict response to psychotherapy. Barron concluded that the scale measured some even broader dimensions of personality functioning, which could be referred to collectively as ego strength, and found the scale to be useful in making some estimate of the individual's adaptability and personal resourcefulness. In addition Barron has noted that

> among the characteristics which are collectively referred to as ego-strength are physiological stability and good health, *a strong sense of reality* [italics added], feelings of personal adequacy and vitality, permissive morality, lack of ethnic prejudice, emotional outgoingness and spontaneity, and intelligence (pp. 332-333).

Barron attributed a variety of characteristics to the construct of ego strength, but for the purposes of this discussion, the most salient are those that refer to the

person's ability to sense, adapt to, and influence reality, as well as the person's sense of personal adequacy.

In general, the definition of ego strength is intimately tied to such qualities as personal competence, personal adequacy, reality perception and mastery and the ability to influence the environment. Zander and Thomas (cited in Crandall, 1973) later revised Barron's scale and conceptualized ego strength as having two parts, executive ability and tension control. That is, ego strength represents "the ability to be self-directing and to translate intentions consistently into behavior...[as well as] the ability to control and discharge tension without disrupting other psychological processes" (p. 132). These qualities characteristic of ego strength represent psychostructural qualities which would directly address the mental health of mystical experients. That is, given some of the traditional assumptions about the personal inadequacy, poor reality perception and mastery, and regressiveness of the mystical experient, one would assume the typical experient manifests poor ego strength.

Speculations about the ego strength of mystical experients may be found in the literature, and historical assumptions on that point have been thoroughly reviewed. In contrast, Epstein (1988) has argued that it is the synthetic function of a well-developed ego that allows for the integration of the experience of disintegration, or the experience of egolessness. Engler (1981) has also noted that

meditative techniques which focus on deconstructing the self first "assume an intact and structured ego" (p. 66). These authors have argued that only a strong ego can be relinquished nonpathologically, which leads to one final structural issue, the pre/trans fallacy.

Pre/trans fallacy. In much of the traditional psychological literature there is an assumption that because mystical experience and disorders involving structural pathology share some common features, the states themselves are therefore equivalent. An alternative explanation has been forwarded by Wilber (1983), who has labeled this logical error the pre/trans fallacy:

> since *pre*rational and *trans*rational are both, in their own ways, nonrational, then they appear quite similar or even identical to the untutored eye. Once this confusion occurs - the confusion of "pre" and "trans" - then one of two things inevitably happens: the transrational realms are *reduced* to prepersonal status, or the prerational realms are *elevated* to transrational glory (p. 202).

Thus, a clearer understanding of the relationship between mystical experience and structural pathology might be gained through placing each in a developmental context.

One possible result of the pre/trans fallacy is the equating of mystical experience with more regressed or unhealthy levels of experience. For example, the phenomenology of a prepersonal experience (borderline self-object fusion) could be confused with that of a transpersonal experience (the ego loss in mystical union). In a further example, Epstein (1989) has noted that the phenomenological

experience of emptiness has different meanings depending on the context, and thus emptiness may refer to the numbness of the psychotic, the incompleteness of the personality disorders, the identity diffusion of the borderline, existential meaninglessness, or the ultimate reality purportedly experienced by some meditators. In theory, these various experiences may be distinguished in large part through an assessment of the level of personality development of the individual.

Engler (1981, 1984) has voiced many of the same concerns as Wilber (1983) and has asserted that lower levels of ego structure contraindicate pursuit of certain kinds of mystical practices. Otherwise, those individuals who have structural pathology may have fusion experiences that look like mystical experiences, but their poor ego strength suggests such experiences would be regressive rather than progressive. Thus, an intact ego is considered requisite for the experience of union to be properly labeled transcendent or mystical, or as Engler has noted, "you have to be somebody before you can be nobody" (p. 31). This final issue leads into a review of the empirical work that has addressed personality structure and mystical experience.

Empirical studies. Though a number of theoretical works have addressed structural views of mental health and mystical experience, the empirical literature is almost nonexistent. Hood (1974) completed a study on intense religious experience and ego strength. Although his definition of religious

experience does not clearly reflect the criteria for mystical experience, his study is included here because it represents one of the only studies that is relevant to this area, and because it touches on some important measurement issues. Hood used Barron's (1953) Ego Strength Scale (Es) and Stark's (1971) Index of Psychic Inadequacy to measure psychological strength in college students and correlated scores on these measures with scores on Hood's (1970) Religious Experience Episodes Measure (REEM), a measure of intense religious experience.

Hood (1974) predicted a negative correlation between Barron's scale and the REEM, since Barron's Ego Strength Scale "reflects psychodynamic principles compatible with psychoanalytic theory" (p. 66). Specifically, the Es scale includes a six-item subscale that refers to attitudes toward religion, the endorsement of which results in a lowered Es score. Hood found a statistically significant negative correlation (r = -.31) between ego strength (Es) and the report of intense religious experience. However, removal of the six-item religious subscale reduced the correlation to nonsignificance (r = -.16).

In addition, Hood (1974) predicted a positive correlation between psychological strength on Stark's scale, which has no religiously oriented items, and scores on the REEM. Hood found a statistically significant point-biserial correlation (r = .29) between psychic adequacy and the report of intense religious experience. The results of this study

suggest the importance of being aware of biases in theory and in traditional assessments of ego strength. Hood has noted that "Barron's own bias in constructing the Ego Strength Scale was to use fundamentalist religious commitment and intense personal religious experiences as indicative of lack of ego strength" (pp. 68-69). Zander and Thomas (cited in Crandall, 1973) have since produced a revised version of Barron's ego strength scale, which does not manifest these religious biases.

In a study referred to earlier, Taft (1969) performed a factor analysis of an experience questionnaire and found a higher order factor labelled ego reduction, under which the peak experience questions clustered. The merging of self with the outside world and reductions in self-consciousness characteristic of these questions hint at the concerns traditional theorists have about the mystical state. In themselves, these results support the concept of boundary loss during mystical experience, but without concurrent and independent measures of mental health, few conclusions can be drawn regarding the ongoing mental health of the experient.

This section has focused on the possible relationship between mystical experience and structural definitions of mental health. The similarity between aspects of the mystical experience and certain symptoms of structural pathology has been addressed by a number of writers (Engler, 1981; Epstein, 1989; Lukoff, 1985). That is, such phenomena as the loss of a sense of self and feelings of unity appear

to be characteristic not only of the mystical experience, but of the psychotic, borderline, and narcissistic pathologies as well. Various writers, however, have suggested that mystical experience involves developmentally higher phenomenon than the phenomena associated with structural pathology, and that the determining factor is the individual's level of psychostructural development (Engler, 1981; Epstein, 1989; Wilber, 1983).

The only empirical research in this area (Hood, 1974) has not addressed mystical experience directly, and consequently the structural definition of mental health offers an exceptionally fertile area for research. An assessment of the psychostructural development of the mystical experient would offer a useful test of the traditional assumption that mystical experience is de facto a regressed experience. Therefore, the current study employed a broad structural measure of mental health.

Subjective Definitions of Mental Health

This section will focus on the relationship between mystical experience and the third view of mental health: the subjective definition. As Strupp and Hadley (1977) have noted, the individual uses a criterion of mental health distinctly different from those used by society and therapists. "The individual wishes first and foremost be be happy, to feel content. He thus defines mental health in terms of highly subjective feelings of well-being -- feelings

with a validity all their own" (p. 188). The authors include subjective perceptions of self-esteem and self-acceptance as representative of the client's assessments of their well-being.

A small body of literature has addressed the relationship between subjective assessments of well-being and mystical experiences. In a review of the literature, Lukoff and Lu (1988) have reported on a study by Greeley (1975) who found that scores on a measure of well-being correlated significantly with the report of mystical experience. Hay and Morisy (1978) used the Bradburn Balanced Affect Scale (Bradburn, 1969) to assess the psychological well-being of persons reporting religious experiences, which was defined as a positive response to their question of being "aware of, or influenced by a presence or power, whether referred to as God or not, which is different from their everyday selves" (p. 255). The authors found that those "reporting religious experiences are significantly more likely to report a high level of psychological wellbeing than those who do not" (p. 259).

Nelson (1989) used the Differential Personality Questionnaire (Tellegen, 1982) to examine the personality characteristics of those reporting praeternatural experiences, a variety of paranormal experiences which included mystical experiences. The author found that persons reporting high numbers of praeternatural experiences demonstrated significantly higher levels of well-being than

those reporting medium levels of such experiences. Unfortunately, this study cannot directly address mystical experience in that mystical experience was only one of the criteria. In a more direct study of mystical experience and in contrast to the previous studies, Spanos and Moretti (1988) used Hood's (1975) Mysticism Scale and found that mystical experience failed to correlate significantly with a measure of self-esteem. The research results in this area have been somewhat contradictory, with some studies indicating a positive relationship between mystical experience and subjective well-being, while others have found no such relationship.

Historically, the theorists and clinicians who have assumed that mystical experience is regressive have had concerns that relate specifically to this third definition of mental health. That is, writers have typically assumed that the strong positive feelings often present during the mystical experience offer the experient an alternative to the anxiety of reality demands. Given Strupp and Hadley's (1977) assertion that the individual's assessment of his or her own mental health may be at odds with assessments from the two other vantage points, the importance of gathering assessments from the other perspectives may be seen. The current study included a measure of the experient's ongoing well-being in addition to assessments from the other two perspectives.

Conclusion and Hypotheses

The previous sections have included reviews of the theoretical and empirical literature on the relationship between mystical experience and mental health. The literature was reviewed from the three different perspectives on mental health recommended by Strupp and Hadley (1977): societal, structural, individual.

There is the possibility that the inconsistent or even contradictory results in the literature arise from a number of difficulties. The definitions and measures of mystical experience have been inconsistent or unclear, only one mental health perspective was used, and measures of mental health have tended to exclude the structural and individual perspectives. The researcher suggests that assessment of the mental health of the mystical experient from the three perspectives simultaneously would yield a more comprehensive picture and possibly clarify some of the inconsistencies in the literature. In addition, an instrument designed specifically to measure mystical experience is required.

To achieve a more comprehensive and consistent view, the current study used a widely accepted phenomenological definition of mystical experience, operationalized in Hood's (1975) Mysticism Scale (M Scale - Research Form D), and assessed mental health from all three perspectives simultaneously. Lukoff and Lu (1988) have noted that Hood's (1975) scale and Greeley's (1974) question are the shared instrumentation in this field of study that allows consensual

research on the mystical experience. Consequently, Greeley's question was used as a secondary measure to assess the occurrence of mystical experience. This secondary measure was used to examine the concurrent validity of the two criterion measures, and to provide a replication of the many studies that have used the question.

There has been a great deal of theory and some empirical research that has addressed the relationship between mystical experience and societal definitions of mental health. The results of the empirical studies using traditional measures of pathology have been equivocal, and the correlations have usually been small or insignificant. A review of the literature suggests that an examination of the interpersonal behavior of the mystical experient would yield one of the best assessments of the experient's mental health from the societal perspective. It would be informative to examine the levels of social anxiety and social avoidance in the mystical experient given that traditional theorists have often assumed high levels of social anxiety drive the mystical experient into escapist or avoidant behaviors. The current study therefore used a widely-accepted measure of social anxiety and avoidance developed by Watson and Friend (1969).

As noted earlier, societal definitions of mental health often address the issues of social adjustment, social integration and adherence to standards of sanctioned conduct. Strupp and Hadley (1977) have noted that appropriate assessments from the societal perspective would include

measures of the individual's ability to "assume responsibility for their assigned social roles" (p. 190), and their ability to adhere to prevailing standards. Therefore, another area that bears examination is the mystical experient's adherence to accepted social standards and roles: behaviors reflected in the individual's level of social responsibility. The current study used another measure from the societal perspective, a measure of social responsibility developed by Gough, McClosky and Meehl (1952).

The possible relationship between mystical experience and structural definitions of mental health was also explored through a review of the literature on mystical experience and various concepts related to structural pathology. Given some of the traditional assumptions about the personal inadequacy, poor reality perception and mastery, as well as the general regressiveness of the mystical experient, one might assume the typical experient manifests a lower level of psychostructural development. As noted earlier, empirical research in this area is greatly needed.

Strupp and Hadley (1977) have suggested that appropriate measures from the structural perspective would include assessments of: personal adequacy, the ability to balance psychic forces, and the ability to cope with reality and to self-regulate. The literature has indicated that many of these characteristics and related constructs that are used to assess psychostructural level may be subsumed under the broad structural concept of ego strength. In fact, a measure of

ego strength has already been used as a structural measure of mental health in a study based on Strupp and Hadley's three perspectives (George & Tittler, 1984). Consequently, the current study used the Zander and Thomas (1960) revision of Barron's Ego Strength scale (Barron, 1953) to make a broad assessment of the mystical experient's mental health from the structural perspective.

The review also included literature that has addressed the relationship between well-being and mystical experience. The few relevant studies reviewed suggest an unclear relationship between the two, but given that positive mood is often present during the mystical experience, the importance of making other assessments of mental health is clearly seen in this area. Strupp and Hadley (1977) have indicated that subjective measures of self-acceptance and self-esteem represent appropriate measures from the individual's perspective. Further, self-acceptance was used by George and Tittler (1984) as a subjective assessment of mental health in a study based on Strupp and Hadley's tripartite definition. Therefore, the current study used Berger's (1952) Self-Acceptance Scale to measure the ongoing mental health of the mystical experient from the individual's own perspective.

Each null hypothesis of the study was tested twice, once using Hood's (1975) Mysticism Scale as a measure of mystical experience, and a second time with Greeley's (1974) question as a measure of mystical experience. Thus, there were ten null hypotheses.

With Hood's (1975) scale as a measure:

1) There is no significant relationship between mystical experience and social avoidance and distress.

2) There is no significant relationship between mystical experience and social responsibility.

3) There is no significant relationship between mystical experience and ego strength.

4) There is no significant relationship between mystical experience and self-acceptance.

5) A combination of the mental health measures does not predict the report of mystical experience.

With Greeley"s (1974) question as a measure:

6) There is no significant relationship between mystical experience and social avoidance and distress.

7) There is no significant relationship between mystical experience and social responsibility.

8) There is no significant relationship between mystical experience and ego strength.

9) There is no significant relationship between mystical experience and self-acceptance.

10) A combination of the mental health measures does not predict the report of mystical experience.

CHAPTER 3
METHODS

Subjects

One hundred and twelve University of Florida undergraduates originally served as participants in the study. The study took place during portions of a Personal Growth (PCO 2714) class period and a Personality (PPE 3004) class period. Participants received extra course credit for their participation in the study. Six protocols were determined to be unscoreable due to mismatches between question number and answer sheet number. Thus, 106 undergraduates served as the final number of participants on whose protocols the analyses were performed.

The ages of the respondents ranged from 17 to 39, with a mean of 21.5 and a standard deviation of 3.2. One person did not report gender, and thus approximately 32% percent were males (n = 34) and approximately 68% were females (n = 71). The sample had a range of undergraduates from freshman to seniors, with seniors comprising the largest percentage of respondents (78%).

Instruments

Mystical Experience

Hood's (1975) Mysticism Scale, Research Form D (M scale) was used as a measure of the report of mystical experience.

Hood used Stace's (1960) conceptual categories as a framework for the development of the M scale, noting that Stace's work and the M scale are based on two assumptions: 1) mystical experience is universal and has clearly identifiable phenomenological features which transcend the differing ideologies of the experients, and 2) all of the phenomenological categories of the mystical experience are not "definitionally essential to any particular individual mystical experience" (p. 30) since there are family resemblances among those experiences that fulfill only some of the core categories.

Hood (1975) began with 108 items rationally selected to represent Stace's (1960) phenomenological categories. After several revisions the final scale consists of 32 items, four of which cluster under each of eight categories: ego quality, unifying quality, inner subjective quality, temporal/spatial quality, noetic quality, ineffability, positive affect, and religious quality (See Appendix A). Final items were those which were most clearly understood, had face validity in terms of Stace's conceptualizations, and which had the highest ability to distinguish between upper and lower quartiles of respondents on initial forms of the test. Final scale values are based upon 300 undergraduate males and females. The average age of the males in the sample was 21.2 years (SD = 4.2) and the average age of the females was 20.1 (SD = 4.2). The mean score on the M Scale for males was 109.3 (SD = 22.6) and for females 119.4 (SD = 18.8). Half of

the questions are positively worded and half are negatively worded to avoid response acquiescence.

Item-to-total scale correlations ranged from .29 to .54 with an average of .42. Hood has noted that the items "have adequate item-total coefficients, although items vary reasonably widely. However, in no instance are the coefficients unacceptably low" (p. 33). Hood has also noted that high significant correlations between positively and negatively worded questions in the same category indicates that the form of expression does not affect the meaningfulness of the statement or the measurement of the phenomenon.

In a study that addresses the construct validity of the scale, Hood (1975) reports a correlation of .81 between the M Scale total score and a measure of intrinsic religious orientation, data which is "consistent with other research indicating a greater report of mystical or other intense religious experiences among intrinsically oriented people" (p. 35). In addition, Hood found a correlation of .47 between the M Scale and a measure of intense religious experience, and a correlation of -.75 with a measure of ego permissiveness (where a lower score represented greater ego permissiveness). Anastasi (1982, p. 145) has noted that moderate correlations with scales that measure similar constructs are supportive of an instrument's construct validity, while exceptionally high or low correlations tend to make the instrument suspect.

Anastasi (1982, p. 146) has also noted that factor analysis is particularly relevant to construct validation. A factor analysis of the M Scale yielded two factors (I and II). Factor I was found to represent a quality of intense transcendent experience, which Hood (1975) has labeled the core experience of mysticism, or a general mysticism factor. Minimally, this factor was characterized by ego loss and alterations in the perception of time and space, and the experience was not necessarily accompanied by positive emotion. Factor II was found to be indicative of "a joyful expression of more traditionally defined religious experiences which may or may not be mystical" (p. 34), or as Hood has concluded, a possible religious interpretation of the core mystical experience indicated by Factor I.

Thus, the M Scale addresses the distinction between core phenomenon and interpretation of that phenomenon noted earlier in this paper, supporting the idea that "some religious experiences may in fact not be mystical and some mystical experiences may in fact not be interpreted as religious" (Hood, 1975, p. 34). Hood's scale has provided researchers with a consistent measure of the report of mystical experience and has been used in number of studies (Hood, 1977; Hood, Hall, Watson, & Biderman, 1979; Spanos & Moretti, 1988). As noted in the literature review, the M-scale essentially represents the best, if not the only, measure of mystical experience in the field. In addition,

research with Hood's M-scale has generated some evidence for its construct validity.

Greeley's (1974) question will be used as a secondary measure of the report of mystical experience. The question is: "Have your ever felt as though you were very close to a powerful, spiritual force that seemed to lift you out of yourself?" Greeley (1974, 1975, 1987) has used this question in a number of surveys and the question has been used by others as well (Hay & Morisy, 1978; Thomas & Cooper, 1978). No reliability or validity data are available for Greeley's question. Only a yes or no response is possible to this question and consequently the question offers a dichotomous measure of the report of mystical experience.

Mental Health - Social/Interpersonal

Two measures of mental health from the societal perspective were used: a measure of social responsibility and a measure of social anxiety and avoidance. As noted earlier, these measures were chosen to address the social withdrawal, social anxiety, and generally poor integration into the larger social world that traditional theorists predict would be characteristic of mystical experients.

Social responsibility. Only a handful of measures have been developed to assess the construct of social responsibility. Gough, McClosky, and Meehl's (1952) scale demonstrates greater evidence for validity and reliability than the other most relevant scale, a measure of social

responsibility developed by Berkowitz and Lutterman (1968). The latter scale had significantly fewer items, no data were reported for test-retest reliability or for internal consistency, and there were no objective behavioral indices of validity. Of particular concern was the strong "conservative individualist theme" (Robinson, 1973, p. 467) and its strong ties to politically traditional values.

Another instrument often used to assess social responsibility was developed for use with children (Harris, 1957) and was inappropriate for use with college students. Berkowitz and Daniels (1964) have attempted to revise the Harris (1957) scale for use with college students but the researchers used only a measure of internal consistency as a measure of the scale's validity. Consequently, Gough, McClosky and Meehl's (1952) scale was determined to be the best and most appropriate instrument and was used to assess social responsibility in the current study.

Gough, McClosky and Meehl (1952) developed their measure of social responsibility using a peer group nomination technique, and the scale has since been incorporated into the MMPI and MMPI-2 (Hathaway & McKinley, 1989). Student samples included 221 ninth graders, 503 high school students and 100 University of Minnesota students, who were "asked to choose the 'most' and 'least' responsible members in their particular group, and were urged to ignore such considerations as friendliness, popularity, etc." (p. 73). Further, students were asked to consider the responsible

person as "one who shows a ready willingness to accept the consequences of his own behavior, dependability, trustworthiness, and a sense of obligation to the group" (p. 74). University students were asked to name the ten most and ten least responsible members in their group. Students reported little difficulty in making the ratings and felt that the task was meaningful. These attitudes in combination with the widespread agreement in ratings lead the authors to conclude that responsibility is a dimension which people can reliably use in judging the behavior of others.

Gough, McClosky and Meehl (1952) then administered a questionnaire to the high and low responsibility groups, and using an item analysis retained the 56 items (See Appendix B) that were able to discriminate between the groups. Items were initially drawn by rational analysis from the MMPI and from questions developed by the writers. Item review suggested that the most responsible students tended to be characterized by: a greater concern for social and moral issues, a strong sense of justice, an emphasis on carrying one's own share of burdens and duties, and a greater sense of trust and confidence in the world in general. Correlations with scales on the MMPI suggested the more responsible student tended to have greater academic achievement, to engage in more extracurricular activities, and to be more social and socially tolerant. These characteristics are representative of the standards, values and behaviors

addressed in the societal definition of mental health (Strupp & Hadley, 1977).

The authors noted that the aim of their study was to develop a scale which would classify individuals according to their level of social responsibility, and thus most of their attention was given to the issue of criterion-related validity. For the college students the range of scores was from 29 to 53, with a mean of 40.62, and a standard deviation of 4.71. The correlation of the total responsibility scale with group ratings was .50 in the college sample and .59 for the high school group. Scores on the responsibility scale had a biserial correlation of .20 with participation in a voluntary social service system instituted in the sample group's high school system.

In an analysis of the screening efficiency of the scale, the Gough et al. (1952) noted that a cutting score of 38 correctly classified 78 percent of the college sample. In addition, the MMPI items were studied as a separate scale and were found to have a .84 correlation with the total scale for the college students. Split-half reliability on the scale was .73, but this reliability information was available for the ninth-grade sample only. The authors concluded that the scale has sufficient reliability for group use and interpretation. In the current study, the total score on the Social Responsibility Scale was used as a measure of the level of social responsibility.

Social anxiety. Scales which have purported to measure the construct of social anxiety (Dixon, deMonchaux, & Sandler, 1957; Sears, 1967) have manifested a number of difficulties in their construction. These potential measures of the construct have evidenced either too few items, poor reliability, or no attention to construct validity. The notable exception to this trend is the Social Avoidance and Distress Scale (SAD) developed by Watson and Friend (1969). The SAD scale represents a marked improvement over other measures of the construct of social anxiety in that it controls for social desirability and response set, addresses anxiety specific to social situations, and measures both the subjective experience of anxiety as well as the behavioral response of avoidance.

Watson and Friend (1969) developed the SAD scale to measure both anxiety in and avoidance of social interactions. For the authors, "social avoidance was defined as avoiding being with, talking to, or escaping from others for any reason. Both actual avoidance and the desire for avoidance were included" (p. 449). In addition, "social distress was defined as the reported experience of a negative emotion, such as being upset, distressed, tense, or anxious in social interactions" (p. 449).

In the development of the scale, 145 items were initially selected by rational analysis, and the items were administered to 297 undergraduates. Empirical analyses were performed to increase scale homogeneity and discriminant

validity, to reduce the likelihood of response acquiescence, and to reduce the effects of a social desirability response set. These analyses left 28 final items for the SAD scale (See Appendix C).

KR-20 reliability for the SAD scale was .94 and there was a -.25 correlation between the SAD scale and a measure of social desirability. The distribution of the SAD scale was skewed. The modal score was zero, the mean was 9.11, the median was 7, and the standard deviation was 8.01. A significant difference was found between the sexes: the mean for males was 11.20 and for females the mean was 8.24. Thus, males reported more social avoidance and distress than females. Two measures of test-retest reliabilities for a one-month period were .68 and .79. The authors concluded the SAD scale has sufficient reliability.

Watson and Friend (1969) described a number of studies which reflect on the validity of the SAD scale. The authors reported that high scorers on the SAD scale were significantly less likely to be interested in returning for another part of the experiment and were more likely to choose to write essay rather than interact in a group. In addition, high scorers on the SAD scale reported being more worried and uneasy, as well as less calm and confident in a group discussion - indicators of social distress. In another study, high scorers on the SAD scale reported talking to others significantly less than low scorers. Finally, the authors concluded that a measure of social avoidance should

correlate negatively with affiliation, and they did find that the SAD scale correlated negatively (-.76) with a measure of affiliation.

The authors concluded that the high SAD person tends to avoid social interactions, is isolated and often fearful, and in the extreme may have a more schizoid style. In that "distressful social relationships may be one powerful determinant of psychopathology" (Watson & Friend, 1969, p. 448), the SAD scale provides a measure not only of interpersonal style, but also of the potential for other forms of pathology that fall under the societal definition of mental health. In the current study, the total score on the SAD scale was used as a measure of the level of social anxiety and avoidance.

Mental Health - Structural

Barron's (1953) Ego Strength Scale and the Thomas-Zander Ego Strength Scale (Zander & Thomas, 1960) are the instruments most commonly used to measure the construct of ego strength, and the Thomas-Zander version offers a number of advantages over the original scale developed by Barron (Crandall, 1973). The Thomas-Zander Ego Strength Scale essentially represents a more refined version of Barron's scale, demonstrating greater evidence for reliability and validity, and manifesting no bias against religious beliefs. Consequently, the current study used the Thomas-Zander scale to measure the construct of ego strength.

Zander and Thomas (1960) have conceptualized ego strength as having two parts. "First is a person's ability to be self-directing and to translate intentions consistently into behavior (i.e. executive ability). Second is the ability to control and discharge tension without disrupting other psychological processes (i.e. tension control)" (Crandall, 1973, p. 132). The authors' first attempt to measure ego strength involved the coding of open-ended self-referent statements. The final form consists of 27 items, answered true or false, which were selected from a larger pool of 48 items (See Appendix D). Twenty of the items reflect both executive ability and tension control, as well as more general ego functions. Seven of the items form a Guttman scale thought to reflect executive ability as well as tension control. The primary groups sampled to date include adults, mental patients and military men, and at least one study has provided some construct validity for the scale using college undergraduates (Sadowski, Woodward, Davis, & Elsbury, 1983), where a significant positive relationship was found between ego strength and internal locus of control.

Crandall (1973) has further summarized some of the studies on validity for the Thomas-Zander Ego Strength Scale noting a correlation of -.65 between the combined 27-item scale and a manifest anxiety scale. In addition, a median correlation in the .20's has been reported between the ego strength scale and the Tennessee esteem scale total score. Crandall has noted that the Thomas-Zander version of the Ego

Strength scale is a demonstrated improvement upon Barron's version of the scale. The Thomas-Zander version correlated .72 with an unpublished open-ended ego-strength scale, while the Barron version correlated only .37 with that scale. Crandall reports that ego strength has predicted several behavioral variables, but perhaps one of the most relevant variables for the current study has been status of inpatients. The Thomas-Zander scale "obtained a significant difference in scores of patients in open versus closed wards not obtainable with the longer [Barron] scale" (p. 130).

Crandall (1973) has also summarized the reliability studies on the scale, noting that the 20-item and the 7-item scales correlated .50. In addition, there was a median item-total scale correlation in the .40's for all 27 items. Test-retest reliability for the 20 items was .81 and .72 for the seven items over one week for 541 men. In the current study the total score on the Thomas-Zander Ego Strength Scale was used as a measure of the level of ego structure.

Mental Health - Individual/Subjective

A variety of scales have been developed to measure self-acceptance or the self-acceptance aspect of self-esteem (Crandall, 1973). Rosenberg's (1965) Self-Esteem Scale, for example, was designed to measure the self acceptance aspect of self-esteem in high school students. In addition, the Coopersmith (1967) Self-Esteem Inventory was designed to measure evaluative attitudes toward the self in children.

The Berger Self-Acceptance Scale (1952), however, exhibits a number of advantages over these other scales as a unidimensional measure of the construct of self-acceptance. For example, the Berger scale was developed with college students, and also manifests a higher degree of reliability and convergent validity than the shorter Rosenberg (1965) self-esteem scale. In addition the Coopersmith (1967) scale has manifested a more ambiguous four-factor structure with low inter-item correlations, and in comparison to the Berger scale, has manifested somewhat lower convergent validity indices with other measures of self-esteem and self-acceptance. Consequently, for this study, Berger's scale was determined to be the most appropriate measure of the construct of self-acceptance.

In the development of the Self-Acceptance Scale, Berger (1952) began with 47 self-referent items which were selected using a definition of self-acceptance based on the work of Scheerer (1949). Items were answered on a five-point scale, from not at all true to completely true. A preliminary scale was administered to 200 undergraduate psychology and sociology students at the University of Pittsburgh. The 36 items that were retained in the final scale (See Appendix E) best discriminated between those who scored in the top 25 percent and those who scored in the bottom 25 percent of the scale. The final items were approximately balanced for response acquiescence.

The Berger scale has been used with adults, college students, prisoners, stutterers and others. Spearman-Brown estimates of reliability ranged from .75 to .89. Crandall (1973) has reported a correlation of .91 for a sample of Berger items administered before and after an experiment. Evidence for the validity of the scale may be found in a number of studies. Omwake (1954) found a correlation of .73 between the Berger (1952) scale and the Phillips (1951) scale, another measure of self-acceptance. Crandall (1973) concluded that there is some evidence for the discriminant validity of the Berger scale.

Berger (1952) has also reported a correlation of .90 between scores on the scale and judges' ratings of a free-response paragraph description of the subjects' attitudes toward themselves. In addition, Berger found some significant group differences in self-acceptance which lend support to the scale's validity. Berger has concluded that the scale manifests satisfactory reliability and both Berger and Crandall (1973) have noted that the scale demonstrates some good evidence for its validity. In the current study, the total score on the self-acceptance scale was used as a measure of mental health from the individual's own perspective.

Procedure

Participants were seated in the lecture halls of a Personal Growth (PCO 2714) course and a Personality (PPE

3004) course during regular class periods. Participants were administered all of the instruments simultaneously; the instruments were numbered in series to facilitate responding on a computer scan sheet. Participants received and responded to the instruments in six different orders, the order being determined by an incomplete counterbalanced design.

Analyses

Hypotheses were tested using the following analyses. Using Hood's (1975) Mysticism Scale as a continuous measure of mystical experience:

1) A Pearson product-moment correlation (Huck, Cormier, & Bounds, 1974, p.31) was used to determine the relationship between mystical experience and social avoidance and distress.

2) A Pearson product-moment correlation was used to determine the relationship between mystical experience and social responsibility.

3) A Pearson product-moment correlation was used to determine the relationship between mystical experience and ego strength.

4) A Pearson product-moment correlation was used to determine the relationship between mystical experience and self-acceptance.

5) A multiple regression analysis was used to determine if a combination of the mental health measures would predict the report of mystical experience.

Using Greeley's (1974) question as a dichotomous measure of mystical experience:

6) A biserial correlation (Huck, Cormier, & Bounds, 1974, p. 35) was used to determine the relationship between mystical experience and social avoidance and distress.

7) A biserial correlation was used to determine the relationship between mystical experience and social responsibility.

8) A biserial correlation was used to determine the relationship between mystical experience and ego strength.

9) A biserial correlation was used to determine the relationship between mystical experience and self-acceptance.

10) A discriminant function analysis was used to determine if a combination of the mental health measures would predict the report of mystical experience.

Further analyses were also performed to examine the relationships among the measures of mental health, mystical experience, gender and age.

CHAPTER 3
RESULTS

Descriptive Statistics

Descriptive statistics were calculated for each of the variables used in the study: 1) Hood's measure of mystical experience (MEH), 2) Greeley's question on mystical experience (MEG), 3) social responsibility (SR), 4) social avoidance and distress (SAD), 5) ego strength (ES), and 6) self-acceptance (SA). The results appear in Table 1.

Table 1
Descriptive Statistics for the Measures of Mystical Experience and Mental Health

Variable	Mean	SD	Range
MEH	103.60	26.95	35-160
MEG	64.2% said "no" 35.8% said "yes"		
SR	35.79	5.69	13-53
SAD	7.86	6.05	1-26
ES	13.98	4.57	5-31
SA	137.47	21.36	74-175

MEH = mystical experience (Hood), MEG = mystical experience (Greeley), SR = social responsibility, SAD = social avoidance and distress, ES = ego strength, SA = self-acceptance

Descriptive statistics of responses on Hood's measure of mystical experience are very similar to statistics reported

in other studies using Hood's scale (Hood, 1975; Spanos & Morretti, 1988).

Greeley's (1974) question was: "Have you ever felt as though you were very close to a powerful, spiritual force that seemed to lift you out of yourself?" Approximately 36% of the participants responded affirmatively to the question, a result consistent with responses reported by other researchers who have used the same question (Greeley, 1978; Hay & Morisy, 1978). In addition, descriptive statistics of participants' scores on the four measures of mental health in this study were similar to scores on those same measures reported in other studies (Berger, 1952); Gough, McClosky, & Meehl, 1952); Sadowski, Woodward, Davis, & Elsbury, 1983); Watson & Friend, 1969). In summary, the sample of students in this study appeared to be similar to other samples of students with regard to their responses on the scales used in this study.

Hypotheses

A correlation matrix depicting the relationships among the variables used in this study appears in Table 2. The results that address the ten major null hypotheses of the study will be reviewed first.

For hypotheses one through five Hood's (1975) Mysticism Scale was used as a continuous measure of mystical experience. Hypothesis one predicted there would be no significant relationship between mystical experience and

Table 2
Pearson Correlations Among the Measures of Mystical Experience and the Measures of Mental Health

	MEH	MEG	SR	SAD	ES	SA
MEH	---	.51***	-.06	-.25**	.24*	.16
MEG		---	-.02	-.05	.15	.19*
SR			---	-.11	.26**	.08
SAD				---	-.31**	-.55***
ES					---	.46***
SA						---

MEH = mystical experience (Hood), MEG = mystical experience (Greeley), SR = social responsibility, SAD = social avoidance and distress, ES = ego strength, SA = self-acceptance
*$p<.05$, **$p<.01$, ***$p<.0001$

social avoidance and distress. In this case the null hypothesis was rejected. A significant relationship (r = -.25, $p < .01$) was found between mystical experience and social avoidance and distress. That is, as mystical experience increased, the level of social avoidance and distress decreased.

Hypothesis two predicted there would be no significant relationship between mystical experience and social responsibility. In this case the null hypothesis was not rejected. No significant relationship (r = -.06, $p > .05$) was found between mystical experience and social responsibility.

Hypothesis three predicted there would be no significant relationship between mystical experience and ego strength.

In this case the null hypothesis was rejected. A significant relationship (r = .24, p < .05) was found between mystical experience and ego strength. That is, as mystical experience increased, level of ego strength increased.

Hypothesis four predicted there would be no significant relationship between mystical experience and self-acceptance. In this case the null hypothesis was not rejected. No significant relationship (r = .16, p > .05) was found between mystical experience and self-acceptance.

Hypothesis five predicted that a combination of the mental health measures would not predict the report of mystical experience. In this case the null hypothesis was rejected. When the four measures of mental health were entered into a simultaneous multiple regression equation, two predicted unique variability in mystical experience. Ego strength (F [1,105] = 4.58, p < .05) and social avoidance and distress (F [1,105] = -4.04, p < .05) significantly accounted for independent variance in the regression equation, yielding a multiple R of .30 (p < .05). That is, as ego strength increased and social avoidance and distress decreased, mystical experience increased.

For hypotheses six through ten, Greeley's (1974) question was used as a dichotomous measure of mystical experience. Hypothesis six predicted there would be no significant relationship between mystical experience and social avoidance and distress. In this case the null hypothesis was not rejected. No significant relationship (r

= .05, $p > .05$) was found between mystical experience and social avoidance and distress.

Hypothesis seven predicted there would be no significant relationship between mystical experience and social responsibility. In this case the null hypothesis was not rejected. No significant relationship ($r = .02$, $p > .05$) was found between mystical experience and social responsibility.

Hypothesis eight predicted there would be no significant relationship between mystical experience and ego strength. In this case the null hypothesis was rejected. A significant relationship ($r = -.15$, $p < .05$) was found between mystical experience and ego strength. That is, the report of mystical experience was associated with higher levels of ego strength.

Hypothesis nine predicted there would be no significant relationship between mystical experience and self-acceptance. In this case the null hypothesis was rejected. A significant relationship ($r = .19$, $p < .05$) was found between mystical experience and self-acceptance. That is, the report of mystical experience was associated with higher levels of self-acceptance.

Hypothesis ten predicted that a combination of the mental health measures would not predict the report of mystical experience. In this case the null hypothesis was not rejected. The discriminant function equation using the four measures of mental health did not significantly ($F = 1.31$ [4,105], $p > .05$) predict mystical experience.

Further Analyses

Although the sample size of this study was too small to allow for any strong conclusions regarding the factor structure of Hood's M-Scale, a principal components factor analysis (Varimax rotation) of the scale failed to replicate the two-factor structure reported in Hood (1975). Hood used this same procedure in his validation study, at which time he selected two factors which appeared to have the most conceptual meaningfulness. In rotating among two factors in the current study, 19 of the 32 items loaded at .3 or above on both factors. Of the remaining 13 items, only 9 loaded in the direction indicated by Hood in his original validation study. In addition, in the current study a scree plot showed the presence of one general factor accounting for the variability among items, and as noted, a two factor rotation did not approximate simple structure. Consequently, in the current study the report of mystical experience via Hood's scale was based on the total score on that scale.

Further analyses were performed to examine the relationship among the measures of mental health, mystical experience, gender and age. Not surprisingly, the report of mystical experience on Greeley's question correlated significantly (r = .51, p < .0001) with the report of mystical experience on Hood's scale. Biserial correlations between individual items on Hood's scale and responses to Greeley's question appear in Table 3. As may be seen, Greeley's question correlated significantly with all but four

items on Hood's scale. Also included in Table 3 is a correlation matrix depicting the relationships between individual items of Hood's scale and total scores on the mental health measures.

Table 3
Correlations between Hood items, Greeley's question, and total scores on the four measures of mental health

Hood Item #	MEG	SR	SAD	ES	SA
1	.36***	-.12	-.10	.05	.10
2	.28**	-.09	-.14	.14	.18
3	.54***	-.07	-.14	.08	.07
4	.35***	-.17	-.10	.09	.05
5	.14	-.08	-.07	.04	.81
6	.31**	-.12	-.09	.07	.01
7	.17	.03	-.07	.11	.02
8	.26**	-.10	-.19*	.21*	.16
9	.38***	-.16	-.16	.03	.01
10	.23*	.01	-.24**	.20*	.07
11	.32***	.03	-.12	.16	.12
12	.45***	-.06	-.22*	.15	.15
13	.41***	-.03	-.16	.04	.03
14	.37***	-.11	-.29**	.10	.07
15	.28**	-.09	-.09	.15	.12
16	.28**	.03	-.13	.29*	.08
17	.43***	-.06	-.11	.27*	.10
18	.09	.01	-.10	.09	.04
19	.38***	.02	-.13	.24*	.18
20	.26**	-.18	-.21*	-.04	.01
21	.15	.02	-.10	.21*	.13
22	.24*	-.07	-.06	-.04	.14
23	.20*	.05	-.31**	-.04	.10
24	.25*	-.11	-.04	.21*	.04
25	.38***	-.03	-.04	.10	.02
26	.41***	-.06	-.13	.24**	.13
27	.34***	-.03	-.19*	.22*	.17
28	.39***	.02	-.23*	.27**	.23*
29	.20*	.07	-.26**	.22*	.17
30	.37***	-.05	-.17	.32***	.19*
31	.37***	.19*	-.23*	.08	.07
32	.20*	-.02	-.23*	.16	.08

MEG = mystical experience (Greeley), SR = social responsibility, SAD = social avoidance and distress, ES = ego strength, SA = self-acceptance
*$p<.05$, **$p<.01$, ***$p<.001$

Further analyses revealed that sex had no relationship to the report of mystical experience on either the Hood scale (r = .10, p > .05) or the Greeley question (r = .04, p > .05). However, a significant relationship was found between sex and social avoidance and distress (r = .24, p < .05), with males reporting higher levels of social avoidance and distress than females. In addition, a significant relationship was found between sex and social responsibility (r = .21, p < .05), with females reporting higher levels of social responsibility than males.

A significant positive relationship was found between age and the report of mystical experience on Hood's scale (r = .19, p < .05), but no relationship was found between age and the report of mystical experience via Greeley's question (r = .12, p > .05). No significant relationships were found between age and any of the four measures of mental health.

In summary, using Hood's (1975) scale, mystical experience was found to increase with the ego strength and age of the respondent. Also, mystical experience was found to increase as social avoidance and distress decreased. Using Greeley's (1974) question, mystical experience was found to increase with the ego strength and self-acceptance of the respondent. No relationship was found between mystical experience and either social responsibility or sex of the respondent, whether Hood's scale or Greeley's question was used as a measure of mystical experience.

CHAPTER 5
DISCUSSION

The purpose of the current study was to examine the relationship between mystical experience and mental health using a tripartite definition (societal, structural, individual) of mental health first elaborated by Strupp and Hadley (1977). Assessments from the three perspectives included measures of social behavior (social responsibility, social avoidance and distress), personality structure (ego strength), and subjective well-being (self-acceptance).

The study was designed to address a number of problematic issues historically seen in research which has examined the relationship between mystical experience and mental health. The problems have been: 1) definitions and measures of mystical experience have been inconsistent or unclear, 2) only one mental health perspective has typically been used in a given study, and 3) measures of mental health have tended to exclude the structural and individual perspectives. This study was designed to assess the mental health of mystical experients simultaneously from the three perspectives to yield a more comprehensive picture and possibly clarify some of the inconsistencies in the literature. In addition, the report of mystical experience was assessed using two different methods that have gained the

reputation of being the instrumentation of choice in this field of research (Lukoff & Lu, 1988).

Measures of Mystical Experience

In the current study, Hood's (1975) measure of mystical experience was assumed to be a more valid and reliable measure of mystical experience than the Greeley (1974) question. Hood's scale not only has operational definitions that are based in a theory of mystical experience (Stace, 1960), but the scale has both a greater number of items and the items sample a wider range of phenomenology thought to be representative of the mystical experience. Further, subsequent research has offered empirical support for the construct validity of Hood's scale.

Greeley's (1974) question was utilized as a secondary measure of mystical experience for several reasons. The question was used primarily because it has been viewed as one of the two measures (the other being Hood's scale) that has served as the more or less agreed-upon instrumentation in this field of research (Lukoff & Lu, 1988). Further, given that Greeley's question and Hood's scale have both been commonly used to measure the construct of mystical experience, it was thought to be important to determine the degree of agreement between the two measures. Such a correlation would be useful in establishing a nomological network, and consequently, in establishing the construct validity of the two measures.

In the current study a significant positive correlation (r = .51, p < .0001) was found between the report of mystical experience on Hood's (1975) M-Scale and on Greeley's (1974) question. This correlation suggests that the two measures may be sampling related domains of experience, and consequently lends some support to the construct validity of the two measures. Further, whereas a very high correlation would have suggested the two may be in a fact measuring the same phenomenon, the moderate correlation discovered here suggests that the two instruments may not be measuring precisely the same phenomenon.

The results of the study will be reviewed in light of research that has suggested Hood's scale has greater reliability and validity. Multi-item measures are preferable to single-item measures in that multiple items lead to greater relability and validity. Consequently, conclusions drawn using Hood's scale as a measure of mystical experience will be given greater weight. However, results that involve Greeley's question will be reviewed with the understanding that samples have repeatedly answered that question in a similar fashion, which suggests that the Greeley question appears to be reliably measuring some subjective experience.

The question Greeley (1974) and others have used to assess the presence of a mystical experience is: "Have your ever felt as though you were very close to a powerful, spiritual force that seemed to lift you out of yourself?" As noted earlier, approximately 36% of the participants in the

current study responded affirmatively to the question. This result is consistent with Greeley's (1978) survey of a representative sample of Americans wherein 35% of the respondents answered the same question affirmatively. In Hay and Morisy's (1978) survey of a representative sample of persons in Great Britain, 36.4% responded affirmatively to Greeley's question.

Biserial correlations were calculated between Greeley's question and each question on Hood's (1975) scale to determine areas of overlap in the measures. Greeley's question correlated significantly with all but four items on Hood's scale (Table 3). Three of these items (75%) were of the four items that cluster under the positive affect cluster of Hood's conceptualization. These results are consistent with the conclusions of a number of writers (Hood, 1975; Mathes, Zevon, Roter, & Joerger, 1982; Spanos & Moretti, 1988) who have argued that not all mystical experience is positive. In addition, these results may suggest that while Hood's scale tends to address mystical experience as a more positive experience, Greeley's question may elicit experiences that are mystical in nature, but not necessarily characterized by positive affect.

The lack of correlation between the positive affect questions on Hood's scale and Greeley's question might, in theory, suggest there is a bias toward positive experience in Hood's scale. Consequently, there might be a bias that would lead to a positive relationship between Hood's measure of

mystical experience and mental health. However, a review of the correlations between total scores on the measures of mental health and the positive affect questions (questions 5, 7, 18, and 25) on Hood's scale revealed no significant correlations. In fact, the item clusters on Hood's scale that had the most correlations with the measures of mental health were the inner subjectivity cluster (questions 8, 10, 29, and 31), unifying quality cluster (questions 12, 19, 28, and 30), and noetic quality cluster (questions 13, 16, 17, and 26). For clarification see Table 3 and Appendix A. That is, these are phenomenological aspects of the mystical experience that have the highest correlation with the measures of mental health used in this study.

In summary, Hood's scale and Greeley's question appear to be measuring related, but not identical, experiences. One possible interpretation is that Greeley's question taps into a variety of experiences, some of which may or may not be mystical in nature. Further, Greeley's question appears to be measuring some aspect of the experience that is not necessarily positive in nature. Finally, though Hood's scale may have a bias toward mystical experiences characterized by positive affect, this bias did not appear to be the source of the significant correlations between Hood's scale and the measures of mental health.

Societal View of Mental Health

As noted earlier, many writers have speculated on various possible aspects of the relationship between mystical experience and societal definitions of mental health. In this study, two representative measures from the the societal view of mental health were used to test some of the traditional assumptions about the mental health of the mystical experient. Since there has been some difficulty in isolating stable clinical pathological correlates of mystical experience (Hood, Hall, Watson, & Biderman, 1979) assessments of socially adaptive and interpersonal behavior were chosen to provide indicators of mental health from the societal perspective.

Given that traditional theorists have often assumed high levels of social-interpersonal anxiety drive the mystical experient into escapist or avoidant behaviors, the study used a widely-accepted measure of social anxiety and avoidance developed by Watson and Friend (1969). In addition, a measure of social responsibility developed by Gough, McClosky and Meehl (1952) was used to address traditional assumptions about the mystical experient's social adjustment, social integration and adherence to standards of sanctioned conduct.

Social avoidance and distress. As noted in the literature review, the Committee on Psychiatry and Religion (1976) has suggested that mystical experients manifest higher

than average levels of social-interpersonal anxiety and tend to withdraw from interpersonal relations. This assumption does not appear to be supported by the results of the present study.

The social avoidance and distress (SAD) scale developed by Watson and Friend (1969) was designed to measure both anxiety in and avoidance of social interactions. As noted earlier, "social avoidance was defined as avoiding being with, talking to, or escaping from others for any reason. Both actual avoidance and the desire for avoidance were included" (p. 449). Also, "social distress was defined as the reported experience of a negative emotion, such as being upset, distressed, tense, or anxious in social interactions" (p. 449). High scorers on the SAD scale tended to be more worried and uneasy, as well as less calm and confident in a group discussion. In addition high scorers tended to avoid social interactions, were more isolated and fearful, were less likely to interact with others, and tended to have lower levels of affiliation.

The significant negative correlation ($r = -.24$, $p < .01$) found between mystical experience (Hood's scale) and social avoidance and distress suggests that, contrary to traditional assumptions, the report of mystical experience tends to be associated with less social avoidance and distress. That is, mystical experients appear to be less likely to isolate and avoid social interactions and are less likely to be worried or anxious when they are interacting with others.

Interpretations of these findings include: a) mystical experients tend to be characterologically less socially avoidant and anxious to begin with, and/or b) mystical experience actually decreases the experients' social anxiety and avoidance. Since the SAD scale measures socially avoidant behaviors as well as subjective anxiety, the results would appear to indicate mystical experients tend not only to feel less socially anxious, but to engage in less social avoidance. However, an inspection of the SAD scale items that had significant correlations with the total score on Hood's scale suggests that the social distress items had the greatest weight in determining the significant relationship. Consequently, there is strong support for the conclusion that mystical experients tend to manifest less social anxiety, and there is some limited support for the conclusion that mystical experients tend to manifest less social avoidance. Though it is clear that mystical experients in this sample tended to manifest less social anxiety and possibly less avoidance than nonexperients, a longitudinal study would be required to determine the actual causal link and directionality of that link, if in fact a causal link exists.

In contrast, when Greeley's (1974) question was used as a dichotomous measure of mystical experience, no significant relationship was found between mystical experience and levels of social avoidance and distress. As noted earlier, Hood's scale provides for a wider range of phenomenology in the mystical experience, has a greater number of items, and

consequently offers a more valid and reliable picture of mystical experience. Also, Greeley's question may be measuring a variety of experiences, possibly even mystical experiences that are not necessarily characterized by positive affect. Though it is difficult to draw conclusions about the meaning of results using his question, it may be concluded that whatever the experience measured by Greeley's question is, that experience is not related to social avoidance and anxiety. To summarize the results using both measures, there is partial support for the conclusion that mystical experience is negatively related to the levels of social avoidance and distress.

Social responsibility. As noted in the literature review, writers from a number of theoretical traditions have assumed that the mystical experient tends toward a more detached, escapist, or socially uninvolved lifestyle (Committee on Psychiatry and Religion, 1976; Ellis, 1989; Freud, 1961, 1964; Schneider, 1987). Further, these writers have often assumed that higher levels of social anxiety, coupled with a more passive attentional style lead the mystic to manifest a reduced involvement with, or generally poor integration into, larger society. The previous section has already called into question assumptions about the mystical experient's level of social anxiety and avoidance. To test the assumptions about the mystical experient's social integration, a measure of social responsibility was chosen to assess the mystical experient's adherence to society's role

expectations and codes of normative social behavior (Strupp & Hadley, 1977).

As noted earlier, Gough, McClosky, and Meehl (1952) determined through item review that the socially responsible student tended to: show a greater concern for social and moral issues, have a strong sense of justice, emphasized carrying one's own share of burdens and duties, and demonstrated a greater sense of trust and confidence in the world in general. In addition, correlations with scales on the MMPI suggested the more responsible student tended to have greater academic achievement, to engage in more extracurricular activities, and to be more social and socially tolerant.

In the present study no significant relationship was found between the report of mystical experience on Hood's scale and level of social responsibility. In this case, the results using Greeley's (1974) question were consistent with the results using Hood's scale. That is, no significant relationship was found between the report of mystical experience and level of social responsibility. Consequently, there is consistent support for the conclusion that mystical experience appears to be unrelated to degree of adherence to society's role expectations or codes of normative social behavior. Stated in another manner, the mystical experient is neither more nor less likely to manifest the socially responsible behaviors described above.

A summary of the results from the social perspective on mental health suggests that the mystical experient tends to manifest lower levels of social avoidance and distress, but is just as likely as not to engage in socially responsible behaviors. Thus, though mystical experients may tend to be characterized by lower levels of socially anxiety and social isolation, they still may or may not behave in a way consistent with societal expectations. This finding is consistent with Schneider's (1987) observation that mystics are not necessarily moral people, and that in fact, mystics may be just as opportunistic and manipulative as nonmystics. This finding is also consistent with the assertions of a number of writers (Koltko, 1989; Wilber, Engler, & Brown, 1986) who have noted that the relationship between transpersonal development and personal morality is complex. These writers have argued that it is naive to assume that because a person has mystical experiences, that person will necessarily adhere to socially normative or socially acceptable behavior.

These findings are also consistent with the research of Spanos and Morretti (1988) who have found that mystical experiences "occur as frequently among those who are psychologically stable as among those who tend to be distraught and troubled" (p. 113). Another way of interpreting these findings, then, is that mystical experiences are as likely to be reported by those who are socially responsible as by those who are not.

Structural View of Mental Health

As noted in the literature review, traditional theorists have assumed that the apparent phenomenological similarities between mystical experience and various forms of structural pathology implied an equivalence of the two experiences. For example, such phenomena as the loss of a sense of self and feelings of unity in the mystical experience are assumed to be equivalent to certain phenomena experienced in psychotic, borderline, and narcissistic pathologies (Engler, 1981; Epstein, 1989; Lukoff, 1985). That is, for many theorists, the mystical experient by definition manifests lower levels of psychostructural development, and concomitantly poor reality adaptation, perception and mastery (Committee, 1976; Epstein, 1989; Freud, 1961, 1964).

As noted earlier, Strupp and Hadley (1977) indicated that appropriate measures of mental health from the structural perspective would address the ego structures and functions (Blanck & Blanck, 1974; Kernberg, 1976) and would include assessments of the individual's personal adequacy and their ability to balance psychic forces, to cope with reality, and to self-regulate. It was argued that an assessment of ego strength would provide one of the broadest measures of personality structure in that the concept encompasses a wide variety of ego structures and functions (Lake, 1985). Consequently, a measure of ego strength (Zander & Thomas, 1960) was used to provide a broad

assessment of the personality structure of the mystical experient. As noted earlier, the Thomas-Zander Ego Strength Scale (Zander and Thomas, 1960) essentially represents a more refined version of Barron's Ego Strength (1953) scale.

In general, qualities attributed to higher levels of ego strength include: personal competence, personal adequacy, reality perception and mastery and the ability to influence the environment (Barron, 1953; Lake, 1985). In addition, Zander and Thomas (1960) have conceptualized ego strength as being characterized by "the ability to be self-directing and to translate intentions consistently into behavior...[as well as] the ability to control and discharge tension without disrupting other psychological processes" (p. 132), and research has found ego strength to be related to internal locus of control. Given some of the traditional assumptions about the personal inadequacy, poor reality perception and mastery, and regressiveness of the mystical experient, one would assume the typical experient manifests lower levels of ego strength.

The significant positive correlation ($r = .24$, $p < .05$) found between mystical experience (Hood's scale) and ego strength suggests that, contrary to traditional assumptions, the report of mystical experiences tends to be associated with higher levels of ego strength. Alternatively, it may be said that those who manifest higher levels of ego strength are more likely to have mystical experiences. Consequently, results suggest that those reporting mystical experience tend

to be characterized by greater ability to be self-directing, to translate intentions into behavior, and to control and discharge tension without disrupting other psychological processes. In addition those reporting mystical experiences are likely characterized by a greater sense of personal adequacy, a greater ability to perceive, cope with, and master reality, a greater ability to self-regulate, and a greater ability to influence the environment.

These findings are consistent with literature suggesting that an intact ego is required for the experience of union to be properly labeled mystical, or as Engler (1981) has noted, "You have to be somebody before you can be nobody" (p. 31). Epstein (1988) has supported Engler in arguing that only a person with a strong ego is able to integrate in a healthy manner an experience in which the sense of self is lost.

Wilber's (1983) explication of the pre/trans fallacy may be relevant to these findings. Wilber has argued that it is a logical error to assume that mystical experience and disorders involving structural pathology are equivalent simply because the two appear to share common features. In fact, a number of writers (Engler, 1981; Epstein, 1989; Wilber, 1983) have argued that mystical experience involves a developmentally higher phenomenon than the phenomena associated with structural pathology, and that the determining factor is the individual's level of psychostructural development. The results of the current study suggest that the subjective phenomenological

experiences of persons characterized by lower levels of ego structure (e.g. borderline self-object fusion) may not be equivalent to the phenomenological experiences that characterize mystical states (e.g. ego loss in mystical union).

In contrast to the results using Hood's scale, when Greeley's (1974) question was used as a measure of mystical experience no significant relationship was found between mystical experience and ego strength. The limitations of Greeley's question as a measure have already been described. Again, it may be concluded that whatever experience is measured by Greeley's question, that experience is not related to ego strength. Regardless, based on the results of the current study there is partial support for the conclusion that mystical experience is positively related to ego strength.

In summary, the traditional assumptions regarding the personal inadequacy, poor reality perception and mastery, and general regressiveness of the mystical experient are not supported by this study. In fact, the reverse appears to be true; the mystical experient tends to manifest higher levels of ego strength. Many different assessments of personality structure could have been chosen for this study, but a broad assessment was used. Consequently, the structural perspective on the mental health of the mystical experient can continue to be a fertile area for research. This is particularly true given the rich body of literature appearing

in the field of developmental transpersonal psychology. Further directions could include emphasis on greater clarity of definitions, attention to specific ego functions, and different experimental designs.

Individual View of Mental Health

As noted earlier, writers who have assumed that mystical experience is regressive have had concerns that relate specifically to this third - the subjective - definition of mental health. That is, theorists have typically assumed that the strong positive feelings often present during the mystical experience offer the experient an alternative to the anxiety of reality demands. As noted earlier, the importance of making a multifactorial assessment of mental health becomes most apparent in this third area. That is, writers have had concerns that mystical experients may feel good, but may not have a healthy personality structure or be able to interact with society in a healthy manner.

Strupp and Hadley (1977) have noted that subjective perceptions of self-acceptance provide a good measure of mental health from the individual's own perspective. Consequently, in this study a measure of self-acceptance (Berger, 1952) was used to assess the mystical experient's subjective sense of well-being.

In the present study no significant relationship was found between mystical experience (Hood's scale) and self-acceptance. That is, mystical experience appears to be

unrelated to degree of subjective well-being as measured by levels of self-acceptance. Alternatively, it may be said that those reporting higher levels of mystical experience are neither more nor less likely to be self-accepting than those reporting lower levels of mystical experience.

As noted earlier, research on the relationship between subjective definitions of mental health and mystical experience has been both limited and equivocal. However, the results of this study are consistent with the results of Spanos and Moretti (1988), who also used Hood's (1975) scale as a measure of mystical experience. Spanos and Moretti found that mystical experience failed to correlate significantly with a measure of self-esteem, another construct Strupp and Hadley (1977) have indicated is reflective of subjective well-being.

These results are also inconsistent with the assumptions of traditional theorists, who have argued that the positive feelings associated with the mystical experience offer an escape from the demands and anxieties of interpersonal relatedness. The results of this study suggest that the mystical experient, in fact, tends to be less socially anxious and avoidant than the non-experient. Simultaneously, the mystical experient tends to be neither more nor less self-accepting than the non-experient in the context of those social interactions. This is a conclusion that could only be drawn from a study that utilized a multifactorial definition of mental health.

When Greeley's (1974) question was used as a measure of mystical experience, a small but significant positive relationship (r = .19, p < .05) was found between mystical experience and self-acceptance. This stands in contrast to results using Hood's (1975) scale, but is consistent with previous research that has used Greeley's question. Both Hay and Morisy (1978) and Greeley (1975), for example, have found a positive correlation between measures of subjective well-being and the report of mystical experience. To summarize, results of this study suggest that if there is a relationship between mystical experience and self-acceptance, that relationship tends to be small, but positive.

Further Analyses

As noted earlier, sex was found to have no relationship to the report of mystical experience on either the Hood scale or the Greeley question. A significant positive relationship was found between age and the report of mystical experience on Hoods's scale (r = .19, p < .05), but no relationship was found between age and the report of mystical experience via Greeley's question. It is possible that Hood's scale, having more questions, had greater reliability in detecting variations in the report of mystical experience, and consequently found a relationship that could not be found with the lower reliability of Greeley's question. Further, the results on Hood's scale might be theoretically consistent with the literature on transpersonal developmental psychology

(Wilber, 1983), with the likelihood of mystical experience increasing as personality structures become sufficiently developed. An alternative explanation might be that older individuals have had a longer opportunity to have more such experiences. Further research could more closely examine the relationship between the two variable. Regardless of the possible explanations, the relationship between mystical experience and age does not appear to be strong.

Finally, inspection of the correlation matrix depicted in Table 2 reveals moderately strong correlations among the various measures of mental health. These results are consistent with Strupp and Hadley's (1977) assertions that the three views of mental health may agree, but need not necessarily do so. Further, it might be hypothesized that the measures are sampling overlapping domains of mental health. Though there was a significant negative correlation (r = -.31, p < .01) between ego strength and social avoidance and distress, the simultaneous regression equation indicated these two variables contributed significantly and independently to the regression equation's prediction of mystical experience (Hood's scale). However, consistent with the small or statistically nonsignificant correlations between Greeley's question and each of the four measures of mental health, a combination of the mental health measures did not predict the report of mystical experience using Greeley's question. In summary, there is some limited support for the conclusion that mystical experience may be

predicted from a combination of structural and social-interpersonal measures of mental health (ego strength and social avoidance and distress).

Limitations and Recommendations

This study manifests several limitations. The population examined was limited to University of Florida undergraduates who had a mean age of 21.5 years. Descriptive statistics of this sample's responses to the instruments suggest they are similar to other samples who have been given these measures. However, the external validity of this study is limited by the restricted nature of its sample and the results may be generalized only to similar samples. Future studies might include nonstudent samples with a wider range of ages and educational backgrounds.

Another limitation lies in this study's failure to replicate the two-factor structure reported by Hood (1975) for his mystical experience scale. This calls into question to some degree the validity of breaking Hood's scale into a measure of two different constructs: core mystical experience and religious interpretation. Unfortunately this made it necessary to use the total score on Hood's scale as a measure of mystical experience in this study. This may ultimately call into question the construct validity of the measure. If future researchers use Hood's scale, a larger sample could be used to address the issue of replication of the scale's factor structure.

Another issue that warrants addressing is the lack of correlation between Greeley's question and three of the four positive affectivity items on Hood's scale. As noted earlier, a number of writers have argued that positive affect is not a defining component of mystical experience. The results of this study suggest that the experiences tapped by Greeley's question and Hood's scale have much in common, but positive affect is not necessarily a component of the experience tapped by Greeley's question. In fact, this finding has significant implications for refining definitions of mystical experience. Spanos and Morretti (1988) have already noted that mystical experience may have either positive or negative qualities. Further work in conceptualization and experimental design may clarify this issue.

Finally, the correlational nature of the study does not allow for definitive statements about possible causal links among the variables or about the directionality of such links. As Lukoff and Lu (1988) have noted, the study of mystical experience does offer challenges to the researcher interested in using an experimental design. However, for research to proceed in this field, experimental designs are needed, or quasi-experimental designs that use such techniques as cross-lagged panel analysis. Lukoff and Lu have argued for the importance of using experimental designs even in the face of the difficulties inherent in manipulating the variable of mystical experience.

Conclusions

To summarize, in comparison to their peers, mystical experients tend to be less socially anxious and avoidant, are neither more nor less socially responsible, tend to have higher ego strength, and may have a slight tendency to be more accepting of themselves. This picture of the mystical experient stands in direct contrast to the images long portrayed in the traditional literature of psychology and psychiatry. In no case was there evidence of mystical experience being negatively related to mental health. That is, in all cases, mystical experience had either no relationship or a positive relationship to the various measures of mental health. This was true whether Hood's (1975) scale or Greeley's (1974) question was used as a measure of mystical experience.

As noted earlier, research has indicated there is either no or a very low correlation between mystical experience and traditional measures of clinical psychopathology (Hood, Hall, Watson, & Biderman, 1979; Leach, 1962; Spanos & Moretti, 1988). When measures of interpersonal and social behavior were used, a similar but somewhat broader picture emerged. Indeed, level of social responsibility appears to be unrelated to mystical experience. However, it would appear that mystical experience is related to lower levels of social anxiety and avoidance. These results are consistent with the work of Hood et al. (1979) who argued that persons reporting

mystical experiences have stable and healthy personality characteristics that can be identified. Hood et al., for example, found that those reporting mystical experiences tended to have higher levels of tolerance, broader interests and were more socially adept than non-experients.

In this study, a tripartite definition of mental health was used, with measures from each perspective used simultaneously on the same sample of experients. Results are consistent with prior research literature which has suggested that measures of mental health either tend not to be related to the report of mystical experience or are positively related to the report of mystical experience. One of the most significant findings is what appears to be a positive relationship between ego strength and mystical experience. These findings belie traditional arguments that the mystical experient by definition manifests poor personality structure. In addition, this study was designed partially with the intention of escaping the use of overly narrow definitions of mental health, or the use of only one definition of mental health. The use of simultaneous measures has yielded results that are largely consistent with the previous experimental literature, and stand in contrast to traditional theory and assumptions about the mental health of the mystical experient.

APPENDIX A
MYSTICISM SCALE, RESEARCH FORM D

The instructions for the scale are as follows:

The attached questionnaire contains brief descriptions of a number of experiences. Some descriptions refer to phenomena that you may have experienced while others refer to phenomena that you may not have experienced. In each case note the description carefully and then place a mark on the answer sheet according to how much the description applies to your own experience. Write +1, +2, or -1, -2, or ? depending on how you feel in each case.

+1: This description is probably true of my own experience or experiences.
-1: This description is probably not true of my own experience or experiences.
+2: This description is definitely true of my own experience or experiences.
-2: This description is definitely not true of my own experience or experiences.
?: I cannot decide.

Please mark each item trying to avoid if at all possible marking any item with a ?. In responding to each item, please understand that the items may be considered as applying to one experience or as applying to several different experiences. After completing the booklet, please be sure that all items have been marked - leave no items unanswered.

(Items are listed under each criterion from which they were operationalized and numbered according to actual scale position.)

EGO QUALITY (E): Refers to the experience of loss of sense of self while consciousness is nevertheless maintained. The loss of self is commonly experienced as an absorption into something greater than the mere empirical ego.

3. I have had an experience in which something greater than myself seemed to absorb me.
4. I have had an experience in which everything seemed to disappear from my mind until I was conscious only of a void.
6. I have never had an experience in which I felt myself to be absorbed as one with all things.

24. I have never had an experience in which my own self seemed to merge into something greater.

UNIFYING QUALITY (U): Refers to the experience of the multiplicity of objects of perception as nevertheless united. Everything is in fact perceived as "One".

12. I have had an experience in which I realized the oneness of myself with all things.
19. I have had an experience in which I felt everything in world to be a part of the same whole.
28. I have never had an experience in which I became aware of a unity to all things.
30. I have never had an experience in which all things seemed to be unified into a single whole.

INNER SUBJECTIVE QUALITY (Is): Refers to the perception of an inner subjectivity to all things, even those usually experienced in purely material forms.

8. I have never had an experience in which I felt as if all things were alive.
10. I have never had an experience in which all things seemed to be aware.
29. I have had an experience in which all things seemed to be conscious.
31. I have had an experience in which I felt nothing is ever really dead.

TEMPORAL/SPATIAL QUALITY (T): Refers to the temporal and spatial parameters of the experience. Essentially both time and space are modified with the extreme being one of an experience that is both "timeless" and "spaceless".

1. I have had an experience which was both timeless and spaceless.
11. I have had an experience in which I had no sense of time or space.
15. I have never had an experience in which time and space were non-existent.
27. I have never had an experience in which time, place, and distance were meaningless.

NOETIC QUALITY (N): Refers to the experience as a source of valid knowledge. Emphasis is on a nonrational, intuitive, insightful experience that is nevertheless recognized as not merely subjective.

13. I have had an experience in which a new view of reality was revealed to me.
16. I have never had an experience in which ultimate reality was revealed to me.
17. I have had an experience in which ultimate reality was revealed to me.

26. I have never had an experience in which the deeper aspects of reality were revealed to me.

INEFFABILITY (I): Refers to the impossibility of expressing the experience in conventional language. The experience simply cannot be put into words due to the nature of the experience itself and not to the linguistic capacity of the subject.

2. I have never had an experience which was incapable of being expressed in words.
21. I have never had an experience which I was unable to express adequately through language.
23. I have had an experience that is impossible to communicate.
32. I have had an experience that cannot be expressed in words.

POSITIVE AFFECT (P): Refers to the positive affective quality of the experience. Typically the experience is of joy or blissful happiness.

5. I have experienced profound joy.
7. I have never experienced a perfectly peaceful state.
18. I have had an experience in which I felt that all was perfection at that time.
25. I have never had an experience which left me with a feeling of wonder.

RELIGIOUS QUALITY (R): Refers to the intrinsic sacredness of the experience. This includes feelings of mystery, awe, and reverence that mat nevertheless be expressed independently of traditional religious language.

9. I have never had an experience which seemed holy to me.
14. I have never experienced anything to be divine.
20. I have had an experience which I knew to be sacred.
22. I have had an experience which left me with a feeling of awe.

Scoring of the scale is by adding +3 to all positively expressed items. All negatively expressed items are first reversed as to algebraic sign and then a +3 is added. In all cases a "?" or a blank is assigned a value of 3. Scores on the scale can range from 32 (least mystical) to 160 (most mystical).

APPENDIX B
SOCIAL RESPONSIBILITY SCALE

(Answers are keyed in the responsible direction.)

1. Every family owes it to the city to keep their sidewalks cleared in the winter and their lawn mowed in the summer. (T)

2. I wouldn't sneak into a movie even if I could do it without being caught. (T)

3. When I work on a committee I like to take charge of things. (T)

4. Maybe some minority groups do get rough treatment, but it's no business of mine. (F)

5. Every citizen should take the time to find out about national affairs, even if it means giving up some personal pleasures. (T)

6. We ought to worry about our own country and let the rest of the world take care of itself. (F)

7. It's a good thing to know people in the right places so you can get traffic tags, and such things, taken care of. (F)

8. It is hard for me to act natural in a group people. (F)

9. It's no use worrying my head about public affairs; I can't do anything about them anyhow. (F)

10. School teachers complain a lot about their pay, but it seems to me they get as much as they deserve. (F)

11. There's no use in doing things for people; you only find that you get in the neck in the long run. (F)

12. When a person "pads" his income tax report so as to get out of some of his taxes, it is just as bad as stealing money from the government. (T)

13. We ought to pay our elected officials better than we do. (T)

14. A person who doesn't vote is not a good citizen. (T)

15. It make me angry when I hear of someone who has been wrongly prevented from voting. (T)

16. If I get too much change in a store, I always give it back. (T)

17. As long as a person votes every four years, he has done his duty as a citizen. (F)

18. Police cars should be specially marked so that you can always see them coming. (F)

19. We ought to let Europe get out of its own mess; it made its bed, let it lie in it. (F)

20. I must admit I try to see what others think before I take a stand. (F)

21. When prices are high you can't blame a person for getting all he can while the getting is good. (F)

22. I can honestly say that I do not really mind paying my taxes because I feel that's one of the things I can do for what I get from the community. (T)

23. People have a real duty to take care of their aged parents, even if it means making some pretty big sacrifices. (T)

24. I would be ashamed not to use my privilege of voting. (T)

25. I like to read news paper article on crime. (F)

26. When someone does me a wrong I feel I should pay him back if I can, just for the principle of the thing. (F)

27. I have had very peculiar and strange experiences. (F)

28. As a youngster I was suspended from school one or more times for cutting up. (F)

29. Everything is turning out just like the prophets of the Bible said it would. (T)

30. I have never done anything dangerous for the thrill of it. (T)

31. I enjoy a race or game better when I bet on it. (F)

32. In school I was sometimes sent to the principal for cutting up. (F)

33. I feel that I have often been punished without cause. (F)

34. I liked school. (T)

35. I seldom or never have dizzy spells. (T)

36. I like science. (T)

37. I very much like hunting. (F)

38. My parents have often objected to the kind of people I went around with. (F)

39. I was a slow learner in school. (F)

40. I have never been in trouble with the law. (T)

41. In school I found it very hard to talk before the class. (F)

42. I do not dread seeing a doctor about a sickness or injury. (T)

43. I played hooky from school quite often as a youngster. (F)

44. I would like to be an auto racer. (F)

45. It is all right to get around the law if you don't actually break it. (F)

46. I have often found people jealous of my good ideas, just because they had not thought of them first. (F)

47. In school my marks in deportment were quite regularly bad. (F)

48. I am fascinated by fire. (F)

49. I usually work things out for myself rather than get someone to show me how. (T)

50. When I get bored I like to stir up some excitement. (F)

51. I like to read about science. (T)

52. A large number of people are guilty of bad sexual conduct. (F)

53. I am often sorry because I am so cross and grouchy. (F)

54. I would like to wear expensive clothes. (F)

55. I am afraid of being alone in a wide-open place. (F)

56. At times I feel like swearing. (F)

APPENDIX C
SOCIAL AVOIDANCE AND DISTRESS (SAD) SCALE

(Scale is keyed in the more anxious direction.)

1. I feel relaxed even in unfamiliar social situations. (F)

2. I try to avoid situations which force me to be very sociable. (T)

3. It is easy for me to relax when I am with strangers. (F)

4. I have no particular desire to avoid people. (F)

5. I often find social occasions upsetting. (T)

6. I usually feel calm and comfortable at social occasions. (F)

7. I am usually at ease when talking to someone of the opposite sex. (F)

8. I try to avoid talking to people unless I know them well. (T)

9. If the chance comes to meet new people, I often take it. (F)

10. I often feel nervous or tense in casual get-togethers in which both sexes are present. (T)

11. I am usually nervous with people unless I know them well. (T)

12. I usually feel relaxed when I am with a group of people. (F).

13. I often want to get away from people. (T)

14. I usually feel uncomfortable when I am in a group of people I don't know. (T)

15. I usually feel relaxed when I meet someone for the first time. (F)

16. Being introduced to people make me tense and nervous. (T)

17. Even though a room is full of strangers, I may enter it anyway. (F)

18. I would avoid walking up and joining a larger group of people. (T)

19. When my superiors want to talk with me, I talk willingly. (T)

20. I often feel on edge when I am with a group of people. (T)

21. I tend to withdraw from people. (T)

22. I don't mind talking to people at parties or social gatherings. (F)

23. I am seldom at ease in a larger group of people. (T)

24. I often think up excuses in order to avoid social engagements. (T)

25. I sometimes take the responsibility for introducing people to each other. (F)

26. I try to avoid formal social occasions. (T)

27. I usually go to whatever social engagements I have. (F)

28. I find it easy to relax with other people. (F)

APPENDIX D
THOMAS-ZANDER EGO STRENGTH SCALE

(Scale is keyed in the direction of greater ego strength.)

1. I am a very ambitious person. (T)
2. I am very stubborn and set in my ways. (F)
3. No one can change my beliefs in which I have strong faith. (T)
4. I frequently find myself worrying about the future. (F)
5. I frequently worry about things that never happen. (F)
6. I give everything I have to what I undertake to do. (T)
7. I am a calm person in almost any emergency. (T)
8. Often I feel tense without any good reason. (F)
9. I am restless or irritable when people make me wait for them. (F)
10. I am always self-reliant and independent in doing my work. (T)
11. I am one who like actively to keep busy. (T)
12. I have an inferiority complex about my abilities to do things. (F)
13. I have strong beliefs which I will always stand by. (T)
14. One of my greatest troubles is that I cannot get down to work when I should. (F)
15. I can work in the midst of a number of distractions. (T)
16. Whenever I am upset I always get over it right away. (T)
17. Often I feel that my time is spent aimlessly. (F)
18. When I decide to do something, I go right to work on it. (T)

19. I don't like to have to work hard to get things done. (F)

20. I never persist at things very long without giving up. (F)

21. I have very definite, established goals in life which I intend to pursue at all costs. (T)

22. Often I find myself doing and saying things that turn out to be things that shouldn't have been done or said. (F)

23. Sometimes I don't care whether I get anywhere in life or not. (F)

24. There are odd moments now and then when I suspect I might go to pieces. (F)

25. Every now and then I lose my temper when things go wrong. (F)

26. Every now and then I can't seem to make up my mind about things. (F)

27. I am one who <u>never</u> gets excited when things go wrong. (T)

APPENDIX E
EXPRESSED ACCEPTANCE OF SELF SCALE

(Scale is keyed in the direction of high self-acceptance.)

Not at all true		Half true half false		Completely true
1	2	3	4	5

1. I'd like it if I could find someone who would tell me how to solve my personal problems. (1)

2. I don't question my worth as a person, even if I think others do. (5)

3. When people say nice things about me, I find it difficult to believe they really mean it. I think maybe they're kidding me or just aren't being sincere. (1)

4. If there is any criticism or anyone says anything about me, I just can't take it. (1)

5. I don't say much at social affairs because I'm afraid that people will criticize me or laugh if I say the wrong thing. (1)

6. I realize that I'm not living very effectively, but I just don't believe I've got it in me to use my energies in better ways. (1)

7. I look on most of the feelings and impulses I have toward people as being quite natural and acceptable. (5)

8. Something inside me just won't let me be satisfied with any job I've done -- it it turns out well, I get a very smug feeling that this is beneath me, I shouldn't be satisfies with this, this isn't a fair test. (1)

9. I feel different from other people. I'd like to have the feeling of security that comes from knowing I'm not too different from others. (1)

10. I'm afraid for people that I like to find out what I'm really like, for fear they'd be disappointed in me. (1)

11. I am frequently bothered by feelings of inferiority. (1)

12. Because of other people, I haven't been able to achieve as much as I should have. (1)

13. I am quite shy and self-conscious in social situations. (1)

14. In order to get along and be liked, I tend to be what people expect me to be rather than anything else. (1)

15. I seem to have a real inner strength in handling things, I'm on a pretty solid foundation and it makes me pretty sure of myself. (5)

16. I feel self-conscious when I'm with people who have a superior position to mine in business or at school. (1)

17. I think I'm neurotic or something. (1)

18. Very often, I don't try to be friendly with people because I think they won't like me. (1)

19. I feel that I'm a person of worth, on an equal plane with others. (5)

20. I can't avoid feeling guilty about the way I feel toward certain people in my life. (1)

21. I'm not afraid of meeting new people. I feel that I'm a worthwhile person and there's no reason why they should dislike me. (5)

22. I sort of only half-believe in myself. (1)

23. I'm very sensitive. People say things and I have a tendency to think they're criticizing me or insulting me in some way and later when I think of it, they may not have meant anything like that at all. (1)

24. I think I have certain abilities and other people say so too. I wonder if I'm not giving them an importance way beyond what they deserve. (1)

25. I feel confident that I can do something about the problems that may arise in the future. (5)

26. I guess I put on a show to impress people. I know I'm not the person I pretend to be. (1)

27. I do not worry or condemn myself if other people pass judgment against me. (5)

28. I don't feel very normal, but I want to feel normal. (1)

29. When I'm in a group I usually don't say much for fear of saying the wrong thing. (1)

30. I have a tendency to sidestep my problems. (1)

31. Even when people do think well of me, I feel sort of guilty because I know I must be fooling them -- that if I were really to be myself, they wouldn't think well of me. (1)

32. I feel that I'm on the same level as other people and that helps to establish good relations with them. (5)

33. I feel that people are apt to react differently to me than they would normally react to other people. (1)

34. I live too much by other people's standards. (1)

35. When I have to address a group, I get self-conscious and have difficulty saying things well. (1)

36. If I didn't always have such hard luck, I'd accomplish much more than I have. (1)

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I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Harry Grater, Chair
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I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

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